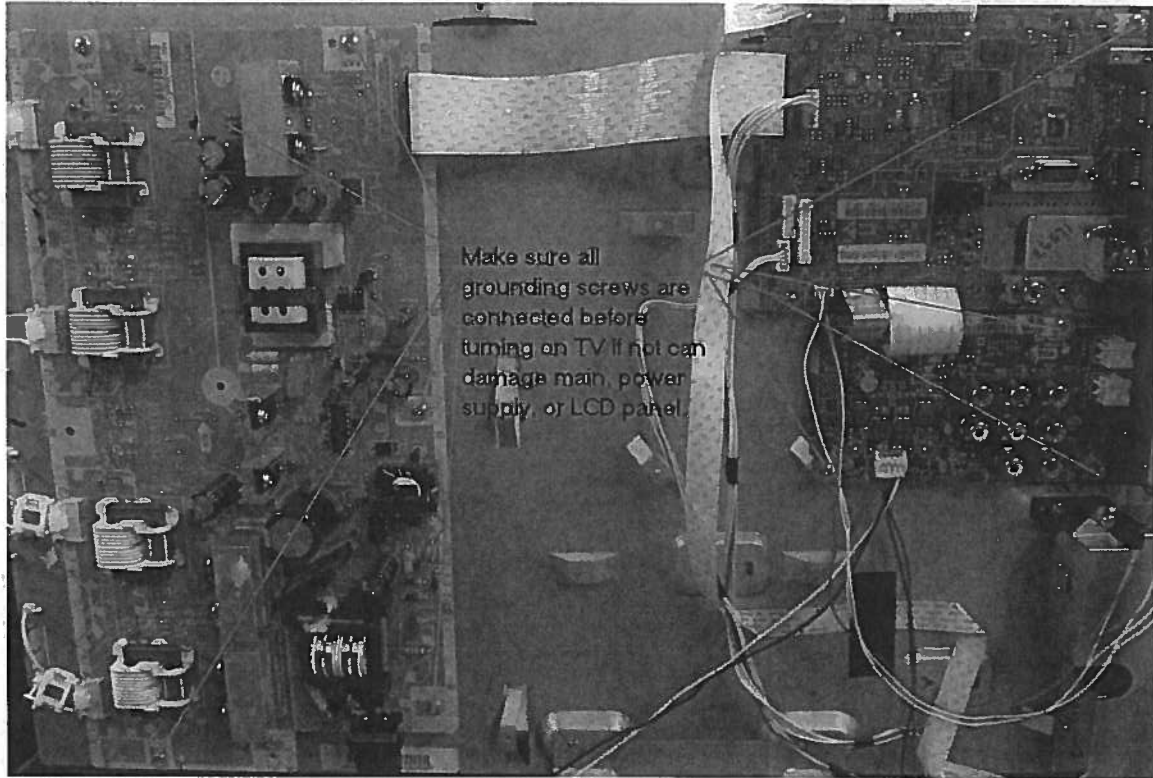


## ATTENTION ON ALL DVD/TV combo TV's

When working on a TV/DVD combo unit make sure you have all your ground screws connected when turning on TV if not can damage the main board, power supply, or LCD panel.





## WHEN REPLACING DVD DECK

### [ When removing the DVD Deck ]

Before removing Pick Up PCB and DVD MT PCB connector, the short circuit the position shown in Fig. 1 using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.

### [ When installing the DVD Deck ]

Remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD MT PCB connector.

### NOTE

- Before your operation, please read "PREPARATION OF SERVICING".
- Use the Lead Free solder.
- Manual soldering conditions
  - Soldering temperature:  $320 \pm 20^{\circ}\text{C}$
  - Soldering time: Within 3 seconds
  - Soldering combination: Sn-3.0Ag-0.5Cu
- When Soldering/Removing of solder, use the draw in equipment over the Pick Up Unit to keep the Flux smoke away from it.

There are 4 solder pads. If the top & bottom pads are shorted together, this solder must be removed for the DVD to operate.

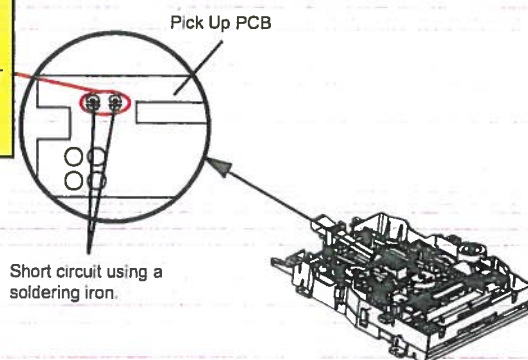


Fig. 1

## PREPARATION OF SERVICING

The laser diode used for a pickup head may be destroyed with external static electricity. Moreover, even if it is operating normally after repair, when static electricity discharge is received at the time of repair, the life of the product may be shortened. Please perform the following measure against static electricity, be careful of destruction of a laser diode at the time of repair.

- Place the unit on a workstation equipped to protect against static electricity, such as conductive mat.
- Soldering iron with ground wire or ceramic type is used.
- A worker needs to use a ground conductive wrist strap for body.



There are 4 solder pads in the "white" circle. The top & bottom pads are shorted together from the factory and this solder must be removed for the DVD to operate.

The solder short has been removed. It is difficult to see, but the top & bottom pads are not connected/shorted. DVD will operate.







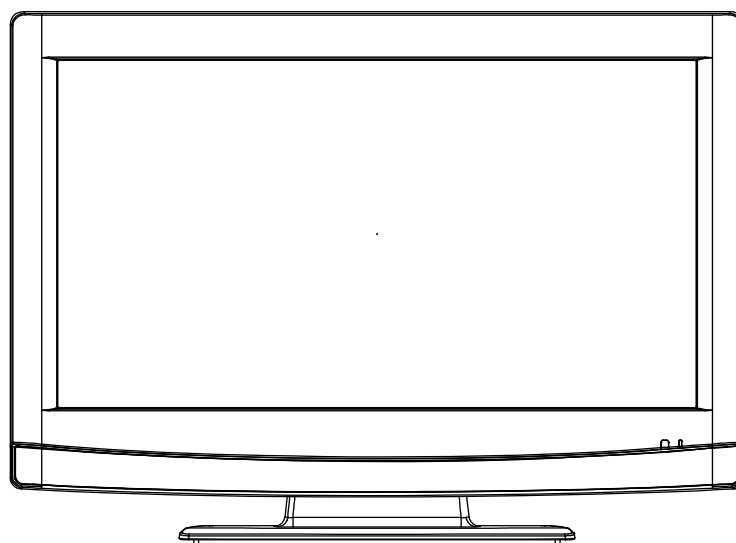
SANYO Factory Code Z5AE  
Service Reference NO. 499

**DP26670**

# SERVICE MANUAL

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18.5" HDTV LCD



ORIGINAL  
MFR'S VERSION A

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Design and specifications are subject to change without notice.

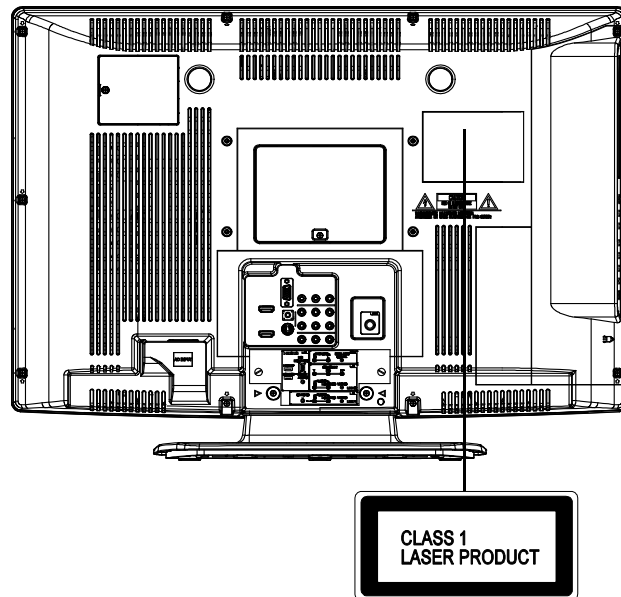


## IMPOTANT WARNING

### CAUTION:

DVD PLAYER IS A CLASS 1 LASER PRODUCT. HOWEVER THIS PLAYER USES A VISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED. BE SURE TO OPERATE THE PLAYER CORRECTLY AS INSTRUCTED.

THE FOLLOWING CAUTION LABEL IS LOCATED ON THE REAR PANEL OF THE PLAYER.



(Printed on the Rear Panel)

WHEN THIS PLAYER IS PLUGGED TO THE WALL OUTLET, DO NOT PLACE YOUR EYES CLOSE TO THE OPENING OF THE DISC TRAY AND OTHER OPENINGS TO LOOK INTO THE INSIDE OF THIS PLAYER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.



## SERVICING NOTICES ON CHECKING

### 1. KEEP THE NOTICES


As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

### 2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

### 3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.

Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a  mark, the designated parts must be used.

### 4. BE CAREFUL WITH THE LCD PANEL

Avoid a shock to the panel while servicing. Take enough care to deal with it.

### 5. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

### 6. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

#### (INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the external exposure metal **[Note 2]** should be more than 1M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 1M ohm, the inspection repair should be required.

#### **[Note 1]**

If you have not the 500V insulation resistance meter, use a Tester.

#### **[Note 2]**

External exposure metal: Antenna terminal  
Headphone jack

## HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the VERSION LETTER.)

#### 1. MODEL NUMBER and VERSION LETTER

The MODEL NUMBER can be found on the back of each product and the VERSION LETTER can be found at the end of the SERIAL NUMBER.

#### 2. PART NO. and DESCRIPTION

You can find it in your SERVICE MANUAL.

## IMPORTANT

When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).



## WHEN REPLACING DVD DECK

### [ When removing the DVD Deck ]

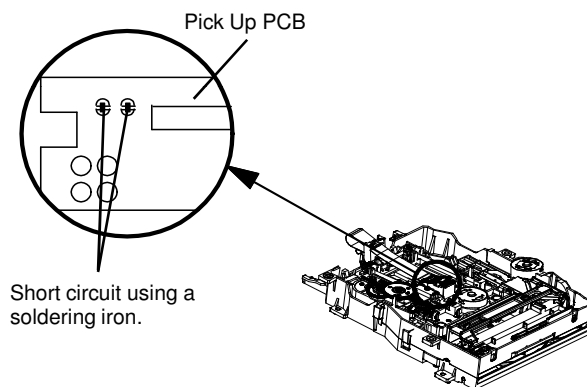
Before removing Pick Up PCB and DVD MT PCB connector, the short circuit the position shown in **Fig. 1** using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.

### [ When installing the DVD Deck ]

Remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD MT PCB connector.

### NOTE

- Before your operation, please read "PREPARATION OF SERVICING".
- Use the Lead Free solder.
- Manual soldering conditions
  - Soldering temperature:  $320 \pm 20^{\circ}\text{C}$
  - Soldering time: Within 3 seconds
  - Soldering combination: Sn-3.0Ag-0.5Cu
- When Soldering/Removing of solder, use the draw in equipment over the Pick Up Unit to keep the Flux smoke away from it.



### NOTE:

There are 4 solder pads. If the top & bottom pads are shorted together, this solder must be removed for the DVD to operate.

Fig. 1

## PREPARATION OF SERVICING

The laser diode used for a pickup head may be destroyed with external static electricity. Moreover, even if it is operating normally after repair, when static electricity discharge is received at the time of repair, the life of the product may be shortened. Please perform the following measure against static electricity, be careful of destruction of a laser diode at the time of repair.

- Place the unit on a workstation equipped to protect against static electricity, such as conductive mat.
- Soldering iron with ground wire or ceramic type is used.
- A worker needs to use a ground conductive wrist strap for body.



## DISC REMOVAL METHOD AT NO POWER SUPPLY

1. Remove the Stand Ass'y, Front Cabinet Ass'y and LCD Panel.  
(Refer to item 1 of the DISASSEMBLY INSTRUCTIONS.)
2. Slide the Gear Middle toward the arrow direction by hand to release the lock. (Refer to Fig. 1)
3. Take out the Disc from the DVD Deck. Be careful not to scratch on the Disc.

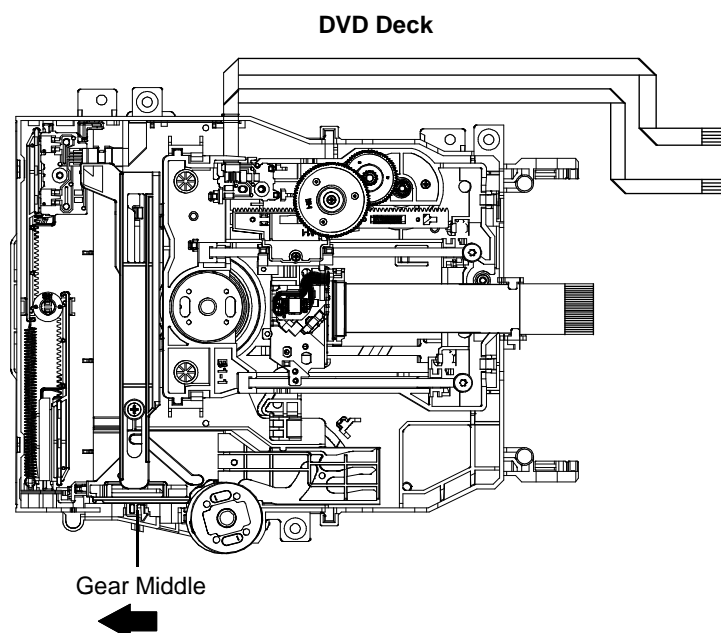


Fig. 1

## PARENTAL CONTROL - RATING LEVEL 4 DIGIT PASSWORD CANCELLATION

If the stored 4 digit password in the Rating Level menu needs to be cancelled, please follow the steps below.

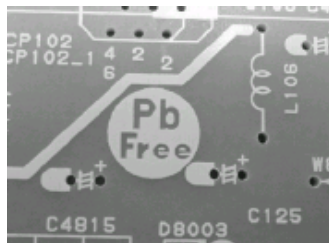
1. Turn Unit ON.
2. Set the DVD to the Stop Mode.
3. Check that "No disc" is displayed on the screen.
4. Press and hold the "STOP" button on the side panel.
5. Simultaneously press and hold the "7" key on the remote control unit.
6. Hold both keys for more than 2 seconds.
7. The On Screen Display message "PASSWORD CLEAR" will appear.
8. The 4 digit password has now been cleared.



## ABOUT LEAD FREE SOLDER (PbF)

### Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.  
(Please refer to figures.)



### Caution:

- Pb free solder has a higher melting point than standard solder;  
Typically the melting point is 86°F~104°F(30°C~40°C) higher.  
Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C).  
In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.  
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,  
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

### Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.



# TABLE OF CONTENTS

<b>IMPORANT WARNING</b> .....	A1-1
<b>SERVICING NOTICES ON CHECKING</b> .....	A1-2
<b>HOW TO ORDER PARTS</b> .....	A1-2
<b>IMPORTANT</b> .....	A1-2
<b>WHEN REPLACING DVD DECK</b> .....	A1-3
<b>DISC REMOVAL METHOD AT NO POWER SUPPLY</b> .....	A1-4
<b>PARENTAL CONTROL - RATING LEVEL</b> .....	A1-4
<b>ABOUT LEAD FREE SOLDER (PbF)</b> .....	A1-5
<b>TABLE OF CONTENTS</b> .....	A2-1
<b>GENERAL SPECIFICATIONS</b> .....	A3-1~A3-6
<b>DISASSEMBLY INSTRUCTIONS</b>	
1. REMOVAL OF MECHANICAL PARTS AND P. C. BOARDS.....	B1-1~B1-3
2. REMOVAL OF DVD DECK PARTS.....	B2-1~B2-5
3. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC.....	B3-1, B3-2
<b>SERVICE MODE LIST</b> .....	C-1
<b>WHEN REPLACING EEPROM (MEMORY) IC</b> .....	C-2
<b>ELECTRICAL ADJUSTMENTS</b> .....	D-1~D-6
<b>BLOCK DIAGRAMS</b> .....	E-1, E-2
<b>PRINTED CIRCUIT BOARDS</b>	
DVD MT.....	F-1, F-2
DIGITAL .....	F-3, F-4
POWER/REMOCON/OPERATION.....	F-5~F-8
LOADING MOTOR/PCB.....	F-9
<b>SCHEMATIC DIAGRAMS</b>	
MPEG/MICON/DSP.....	G-1, G-2
MEMORY/SD CARD.....	G-3, G-4
LOADER/MOTOR DRV.....	G-5, G-6
VIDEO/AUDIO IN/OUT.....	G-7, G-8
FLASH.....	G-9, G-10
DDR2.....	G-11, G-12
HDMI.....	G-13, G-14
LVDS.....	G-15, G-16
MICON.....	G-17, G-18
SCALER POWER.....	G-19, G-20
TUNER.....	G-21, G-22
SCALER VIDEO/AUDIO .....	G-23, G-24
JACK.....	G-25, G-26
REGULATOR.....	G-27, G-28
SOUND.....	G-29, G-30
JACK2.....	G-31, G-32
POWER1.....	G-33, H-34
POWER2.....	G-35, H-36
REGULATOR2.....	G-37, H-38
OPERATION/REMOCON.....	G-39, G-40
LOADING MOTOR/PCB.....	G-41, G-42
<b>INTERCONNECTION DIAGRAM</b> .....	G-43, G-44
<b>WAVEFORMS</b> .....	H-1, H-2
<b>MECHANICAL EXPLODED VIEWS</b> .....	I1-1~I1-3
<b>DVD DECK EXPLODED VIEW</b> .....	I2-1
<b>MECHANICAL REPLACEMENT PARTS LIST</b> .....	J1-1
<b>DVD DECK REPLACEMENT PARTS LIST</b> .....	J2-1
<b>ELECTRICAL REPLACEMENT PARTS LIST</b> .....	J3-1~J3-7



## GENERAL SPECIFICATIONS

G-1	TV System	LCD	LCD Size / Visual Size		26.01 inch / 660.5mmV
			LCD Type		Color TFT LCD
			Number of Pixels		1366(H) x 768(V)
			Double Scan		No
			View Range	Left/Right	80/80 degree
				Up/Down	75/75 degree
G-2	DVD System	Color System	Bright Dot		n ≤ 2
			Zero Bright Dot Ratio		70%
			Color System		NTSC
			Speaker		2 Speaker
			Position		Front
			Size		1.6 x 4.8 inch
G-3	Tuning System	Disc	Impedance		8 ohm
			Sound Output		5.0W + 5.0W
			Max		---
			10%(Typical)		---
			Search speed		4 step
			Fwd		4, 8, 16, 32 times (DVD)
G-4	Signal	Video Signal	Actual	4, 8, 16, 32 times (CD)	
				4 step	
			Actual	4, 8, 16, 32 times (DVD)	
				4, 8, 16, 32 times (CD)	
			Actual	4 step	
				1/16, 1/8, 1/4, 1/2 times	
G-5	Power	Slow speed	4 step		1/16, 1/8, 1/4, 1/2 times
			Fwd		4 step
			Rev		1/16, 1/8, 1/4, 1/2 times
			Actual		4 step
			1/16, 1/8, 1/4, 1/2 times		---
			Actual		---
G-6	Regulation	Broadcasting System	Analog		US System M
			Digital		ATSC(8VSB)/QAM
			Tuner and Receive CH		1Tuner
			System		US (W/CABLE)
			Destination		2~69, 4A, A-5~A-1, A~I, J~W, W+1~W+94
			CH Coverage		44.00MHz
G-7	Temperature	Intermediate Digital	Frequency		45.75MHz
			Analog		41.25MHz
			Picture(FP)		4.50MHz
			Sound(FS)		---
			FP-FS		No
			Preset CH		US-Stereo
G-8	Operating Humidity	Stereo/Dual TV Sound	Tuner Sound Muting		Yes
			Video Signal		1 V p-p/75 ohm
			Input Level		--
			Output Level		--
			S/N Ratio (Weighted)		--
			Horizontal Resolution at DVD Mode		--
G-9	Signal	RGB Signal	Output Level		--
			Audio Signal		--
			Input Level		-8.0dBm/50k ohm
			Output Level		-12 dBm/ 1k ohm (-20dBFS, 0dBFS=2.0Vrms)
			at DVD		0-600mV /1k ohm
			at TV		0.5 V p-p/75 ohm
G-10	Power	Power Source	AC		120V, 60Hz
			DC		--
			Power Consumption		61W at 120V 60Hz
			at AC		--
			at DC		0.3W at 120V 60Hz
			Stand by (at AC)		Yes (Ver.4.0)
G-11	Energy Star	Per Year	kWh/Year		-- kWh/Year
			Protector		Yes
			Power Fuse		Yes
			Safety Circuit		Yes
			IC Protector(Micro Fuse)		Yes
			Safety		UL(UL60065_7th)/cUL(CSA E60065_03)
G-12	Regulation	Radiation	Laser		FCC/IC
			Operation		DHHS
			Storage		+5°C ~ +40°C
			Space Around Unit		-20°C ~ +60°C
			10cm (4inch)		10cm (4inch)
			Less than 80% RH		Less than 80% RH



## GENERAL SPECIFICATIONS

G-9	Clock and Timer	Clock	No
		Sleep Timer      Max Time	120 Min
		On Timer      Program	<u>Yes 1Program</u>
		Off Timer      Program	No
		Game Timer	No
		Timer Back-up (at Power Off Mode)      more than	--      Min      Sec
G-10	Remote Control	Unit	RC-SC
		Glow in Dark Remocon	No
		Remocon Format	SANYO
		Format	NEC
		Custom Code	38-C7 h
		Power Source      Voltage(D.C)	3V
		UM size x pcs	UM-3 x 2 pcs
		Total Keys	50 Keys
		Keys	POWER
		DISPLAY/-	No
		DISPLAY	Yes
		"_"	Yes
		TV/DVD	Yes
		EJECT	Yes
		1	Yes
		2	Yes
		3	Yes
		4	Yes
		5	Yes
		6	Yes
		7	Yes
		8	Yes
		9	Yes
		0	Yes
		MUTE	Yes
		SLEEP	Yes
		SETUP/TV MENU	Yes
		DVD MENU	Yes
		ENTER	Yes
		Left	Yes
		Right	Yes
		Up	Yes
		Down	Yes
		CH+	Yes
		CH-	Yes
		VOL+	Yes
		VOL-	Yes
		CH+ / Up	No
		CH- / Down	No
		VOL+ / Right	No
		VOL- / Left	No
		EXIT/CANCEL	Yes
		TOP MENU	Yes
		SEARCH-	Yes
		PLAY	Yes
		SEARCH+	Yes
		SKIP-	Yes
		SUBTITLE	Yes
		STOP	Yes
		SKIP+	Yes
		SLOW-	Yes
		PAUSE	Yes
		PLAY MODE	Yes
		SLOW+	Yes
		AUDIO	Yes
		RETURN	Yes
		REPEAT A-B	Yes
		ANGLE	Yes
		Picture Size	Yes
		MARKER	Yes
		CCD/JUMP	Yes
		Recall(Quick View)/ZOOM	Yes
		INPUT SELECT	Yes
		FREEZE	No



## GENERAL SPECIFICATIONS

G-11	Features	Auto Shut Off	Yes
		Auto Search	No
		Power On Memory	Yes
		Hotel Mode	Yes
		Comb Filter	Yes
			<u>3</u> -D
		Game Position	No
		Auto Setup	Yes
		Language	No
		TV Location	Yes
		Signal Type	Yes
		Automatic Search	Yes
		Picture Setting(TV)	Yes
		Picture Preference	Yes
		Brightness , Contrast , Color	Yes
		Tint	Yes
		Sharpness	Yes
		Color Temperature	Yes
		DNR	Yes
		Backlight	Yes
		Picture Setting(PC)	Yes
		HOR Position , VER Position	Yes
		Phase, Clock	Yes
		Red, Green, Blue	No
		Auto Adjust	Yes
		Audio	MTS
			Tone Control (Bass/Treble/Balance)
			Stable Sound
			Surround
			BBE
			SRS WOW (SRS 3D/Focus/Tru Bass)
			HDMI Audio
			Variable Audio Out
		Tuning	CH Program
			Air/Cable
			ADD/DELETE
		Label	CH Label
			Video Label
		Favorite CH	No
		V-Chip	Yes
		Type	<u>USA Type</u>
		RRT Setup	Yes
		Lock	Hotel Lock
			Channel Lock
			Video Lock
			Panel Lock
		Menu Language	English
		DBC (Dynamic Backlight Control)	No
		Dynamic Gamma	Yes
		Signal Meter (DTV Signal)	Yes
		Closed Caption	Yes
		CC Advanced	Yes
		V-Chip Clear	Yes
		Picture Size	Yes
		HD Zoom	Yes
		Film Mode	Yes
		Aspect	No
		PFC(Power Factor circuit)	No
		Freeze frame	No
		PIP/POP	No
		Direct Input Selection	Yes
		PC Plug and Play	No
		Energy Star LOGO (OSD)	Yes
		Digital Out	Dolby Digital
			MPEG
			PCM
			DTS
		PC Monitor Input	Yes
			VGA (640x480)
			VGA (720x400)
			WVGA (848x480)
			SVGA (800x600)
			XGA (1024x768)
			WXGA (1280x768)
			WXGA (1280x720)
			WXGA (1360x768)
			SXGA (1280x1024)
		HDMI Input	Yes



## GENERAL SPECIFICATIONS

		VGA (640x480)	Yes (60Hz)
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
		1920x1080p	Yes (60Hz)
		CEC (ORION Standard)	No
		Deep Color	No
		xvYCC	No
	DVI to HDMI Input	VGA (640x480)	Yes (60,72,75Hz)
		VGA (720x400)	Yes (70Hz)
		WVGA (848x480)	No
		SVGA (800x600)	Yes (56,60,72,75Hz)
		XGA (1024x768)	Yes (60,70,75Hz)
		WXGA (1280x768)	Yes (60Hz)
		WXGA (1280x720)	Yes (60Hz)
		WXGA (1360x768)	Yes (60Hz)
		SXGA (1280x1024)	No
	Component Input		Yes
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
		1920x1080p	No
	Wall Mount	Size W x H(mm)	Yes (200 x 100)
		Screw Size	M4 x 10
	Stand	Tilt	No
		Swivel	No
G-12	Accessories	Video CD Playback	No
		SVCD Playback	No
		MP3 Playback	Yes
		JPEG	Yes
		WMA	Yes
		Macrovision	Yes (No Video Out)
		Divx Playback	No
		DMF Support	No
		Digital Out (Dolby Digital)	Yes
		(MPEG)	Yes
		(PCM)	Yes
		(DTS)	Yes
		Down Mix Out (Dolby Digital)	Yes
		(DTS)	No
		Auto Retract Disc	No
		Closed Caption	Yes
		Screen Saver	No
		TV Screen 4:3 (Letter Box, Pan Scan)	Yes
		16:9 (Wide)	Yes
		Audio DAC	192kHz / 24bit
G-12	Accessories	Owner's Manual Language w/Guarantee Card	English / Spanish Yes
		Remote Control Unit	Yes
		Rod Antenna Poles	No --
		Terminal	--
		Loop Antenna Terminal	No --
		U/V Mixer	No
		DC Car Cord (Center+)	No
		Guarantee Card	No
		Warning Sheet	No
		Circuit Diagram	No
		Antenna Change Plug	No
		Service Facility List	No
		Important Safeguard	No
		Dew/AHC Caution Sheet	No
		Quick Set-up Sheet	No



## GENERAL SPECIFICATIONS

		Battery		UM size x pcs	--
				OEM Brand	--
		AC Adapter			No
		AC Cord (for AC Adapter)			No
		AC Cord			Yes
		Cable Tie			No
		AV Cord (2Pin-1Pin)			No
		Registration Card (NDL Card)			No
		300 to 75ohm Antenna Adapter			No
		Sheet Information (FCC)			No
		Sheet Information (DTV)			No
		Sheet Information (Return)			Yes
		Sheet Information (Picture Quality)			Yes
		Sheet Information (Sheet Set Up)			No
		Sheet Information (HDMI)			No
		Sheet Information (CEA)			No
		Cleaning Cloth			No
		Stand Screw			Yes(2pcs)
		Stand			Yes
		Frame Stand			No
G-13	Interface	Switch	Side	Power (Tact)	Yes
				Channel Up/Menu Up/Play	Yes
				Channel Down/Menu Down/Stop	Yes
				Volume Up/Menu >	Yes
				Volume Down/Menu <	Yes
				Menu	Yes
				Play	No (CH+ Alternative)
				Eject	Yes
				Skip+, Search+	No
				Skip-, Search-	No
				Still/Pause	No
				Stop	No (CH- Alternative)
				Main Power SW	No
				Input Select/Enter	Yes
		Indicator	Rear	Main Power SW	No
				Power/Stand-By	Yes (Green / Red)
				Power Wake Up	No
		Terminals	Rear	On Timer	No
				Video Input 1	RCA x 1
				Audio Input 1	RCA x 2(L/MONO, R)
				S - Input 1	Yes
				Video Input 2	RCA x 1
				Audio Input 2	RCA x 2(L/MONO, R)
				S - Input 2	No
				Video Output	No
				Audio Output	RCA x 2 (Variable) (L, R)
				Component Input 1	RCA x 3
				Analog Audio	Video Input 2 Audio Input Alternative
				Component Input 2	No
				Analog Audio	No
				HDMI Input 1	Yes
				Analog Audio	PC Audio Input Alternative
				HDMI Input 2	Yes
				Analog Audio	No
				Sub Woofer Out	No
				PC Monitor Input	Yes
				Analog Audio	Mini Pin Jack(φ3.5), STEREO
				Digital Audio Output	Coaxial
				DC Jack (Center +)	No
				VHF/UHF Antenna Input	F Type
				Video Input 3	No
				Audio Input 3	No
				S - Input 3	No
				Other Terminal	No
				AC Inlet	Yes
				USB (Software Update)	Yes
				USB (JPEG/MP3/Software Update)	No
G-14	Set Size	Approx. W x D x H (mm)		663 x 214 x 498.0	
		w/o Handle, Stand Approx. W x D x H (mm)		663 x 96 x 450.5	
G-15	Weight	Net (Approx.)		8.3kg(18.3lbs)	
		Net w/o Handle, Stand (Approx.)		7.7kg(17.0lbs)	
		Gross (Approx.)		10.8kg(23.8lbs)	
		Gross w/Master Carton (Approx.)		--- kg (--- lbs)	



## GENERAL SPECIFICATIONS

G-16	Carton	Master Carton	No
		Content	--- Sets
		Material	--- / ---
		Dimensions W x D x H(mm)	---
		Description of Origin	---
		Gift Box	Double/Brown
		Material	No
		W/Color Photo Label	No
		W/Handle	No
		Dimensions W x D x H(mm)	878 x 193 x 574
		Description of Origin	No
		Drop Test	1 Corner / 3 Edges / 6 Surfaces
		Height (cm)	62
		Container Stuffing (40' container)	616 Sets/40' container
G-17	Material	w/Pallet	No
		w/Wrapping	No
		Cabinet	PC+ABS 94V0 NON-HALOGEN
		Front	PS 94V0 NON-DECABROM
		Rear	PS 94HB
		Stand	--
G-18	Environment	Jack Panel	No
		PCB	Yes
		Non-Halogen Demand	Yes
		Eyelet Demand	Phase3(Phase3A)
		Environmental standard requirement	Yes
		Pb-free	Yes
		Measures for Whisker	Yes
		Rohs	Yes



# DISASSEMBLY INSTRUCTIONS

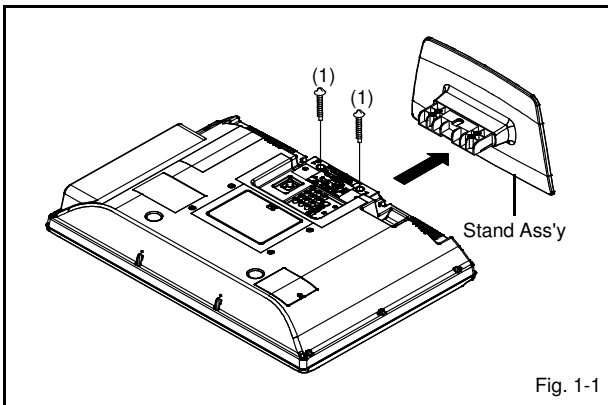
## 1. REMOVAL OF MECHANICAL PARTS AND P.C. BOARDS

### CAUTION

Be careful not to remove the LVDS cable forcibly, because the LVDS cable may be damaged.

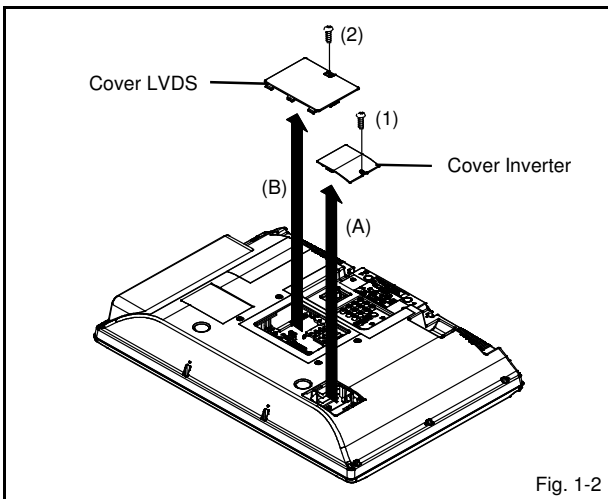
### 1-1: STAND ASS'Y (Refer to Fig. 1-1)

1. Remove the 2 screws (1).
2. Remove the Stand Ass'y in the direction of arrow.



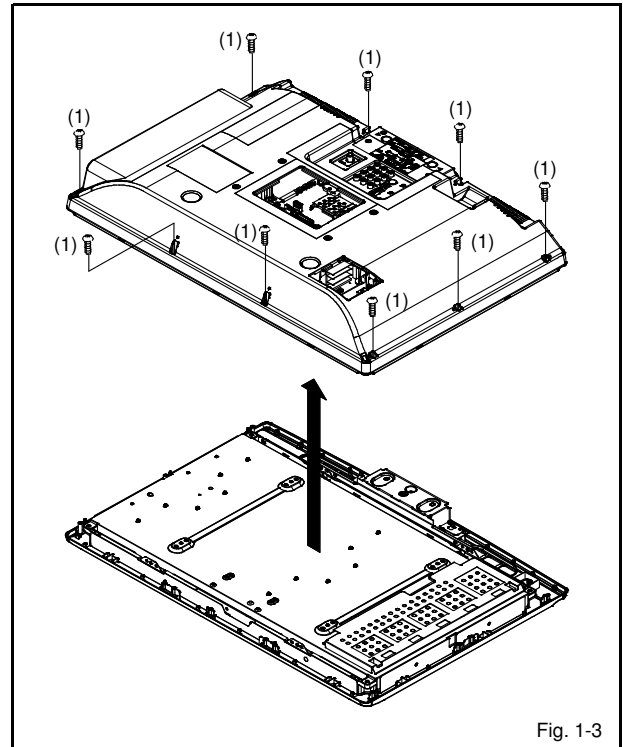
### 1-2: COVER INVERTER and COVER LVDS (Refer to Fig. 1-2)

1. Remove the screw (1).
2. Remove the Cover Inverter in the direction of arrow (A).
3. Disconnect the following connector: (CP3906).
4. Remove the screw (2).
5. Remove the Cover LVDS in the direction of arrow (B).
6. Disconnect the following connector: (CP2804).



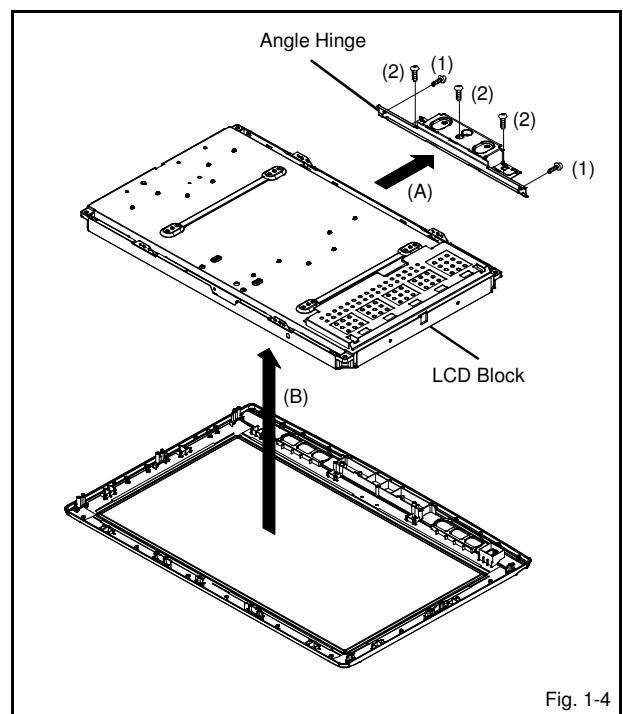
### 1-3: BACK CABINET ASS'Y (Refer to Fig. 1-3)

1. Remove the 9 screws (1).
2. Remove the Back Cabinet Ass'y in the direction of arrow.



### 1-4: LCD BLOCK (Refer to Fig. 1-4)

1. Remove the 2 screws (1).
2. Remove the 3 screws (2).
3. Remove the Angle-Hinge in the direction of arrow (A).
4. Remove the LCD Block in the direction of arrow (B).





## DISASSEMBLY INSTRUCTIONS

### 1-5: DVD MT PCB and DVD DECK (Refer to Fig. 1-5)

1. Put the Cabinet Back Ass'y on the bottom.
2. Short circuit the position shown in Fig. 1-5 using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.
3. Disconnect the following connectors: **(CP2301, CP2302, CP2303, CP8501 and CP8502).**
4. Remove the 3 screws (1).
5. Remove the DVD DECK Ass'y in the direction of arrow (A).
6. Remove the 4 screws (2).
7. Remove the Shield LVDS in the direction of arrow (B).
8. Remove the Shield LVDS Bottom in the direction of arrow (C).
9. Unlock the 2 supports (3).
10. Remove the DVD MT PCB in the direction of arrow (D).

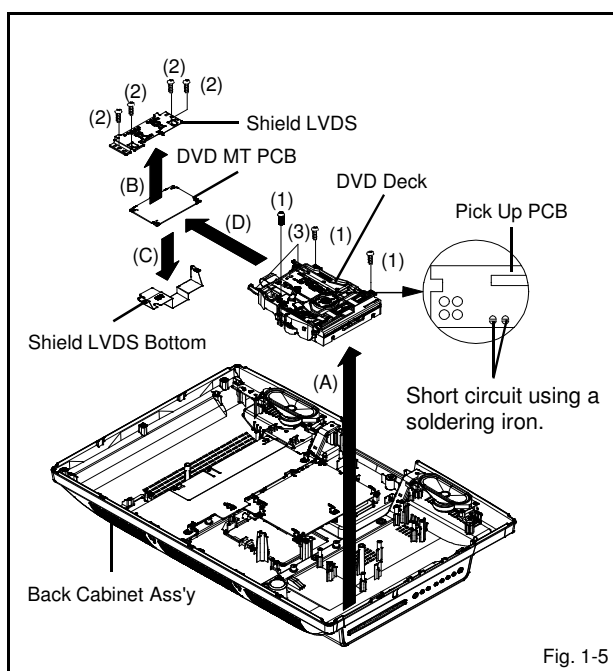


Fig. 1-5

#### NOTE

1. Before your operation, please read "PREPARATION OF SERVICING".
2. Use the Lead Free solder.
3. Manual soldering conditions
  - Soldering temperature:  $320 \pm 20^{\circ}\text{C}$
  - Soldering time: Within 3 seconds
  - Soldering combination: Sn-3.0Ag-0.5Cu
4. When Soldering/Removing of solder, use the drawing equipment over the Pick Up Unit to keep the Flux smoke away from it.
5. When installing the DVD Deck, remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD MT PCB connector.

### 1-6: POWER PCB (Refer to Fig. 1-6)

1. Disconnect the following connectors: **(CP3001 and CP3002).**
2. Remove the 2 screws (1).
3. Remove the Sheet PC in the direction of arrow (A).
4. Remove the 4 screws (2).
5. Remove the Power PCB in the direction of arrow (B).

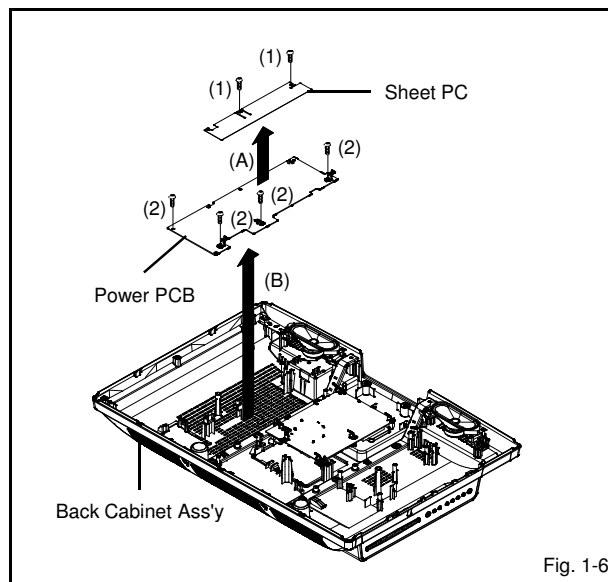


Fig. 1-6

### 1-7: DIGITAL PCB (Refer to Fig. 1-7)

1. Disconnect the following connectors: **(CP301, CP6202 and CP6204).**
2. Remove the 7 screws (1).
3. Remove the Digital PCB in the direction of arrow.

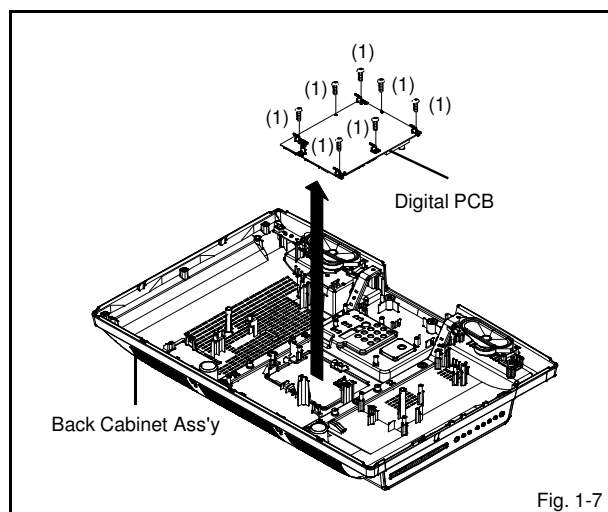


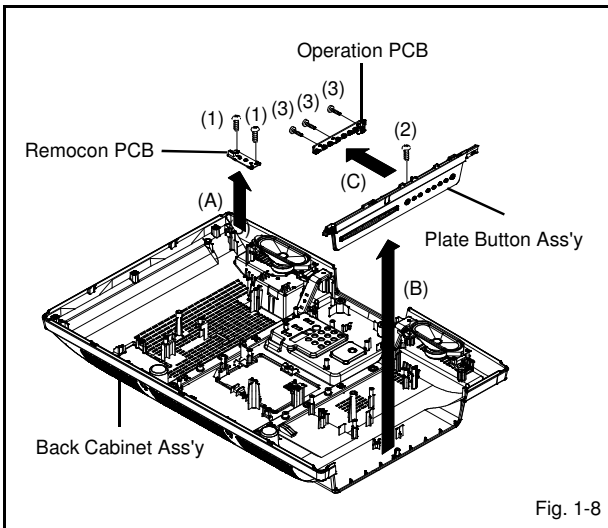
Fig. 1-7



## DISASSEMBLY INSTRUCTIONS

### 1-8: OPERATION PCB and REMOCON PCB (Refer to Fig. 1-8)

1. Remove the 2 screws (1).
2. Remove the Remocon PCB in the direction of arrow (A).
3. Remove the screw (2).
4. Remove the Plate Button Ass'y in the direction of arrow (B).
5. Remove the 3 screws (3).
6. Remove the Operation PCB in the direction of arrow (C).





# DISASSEMBLY INSTRUCTIONS

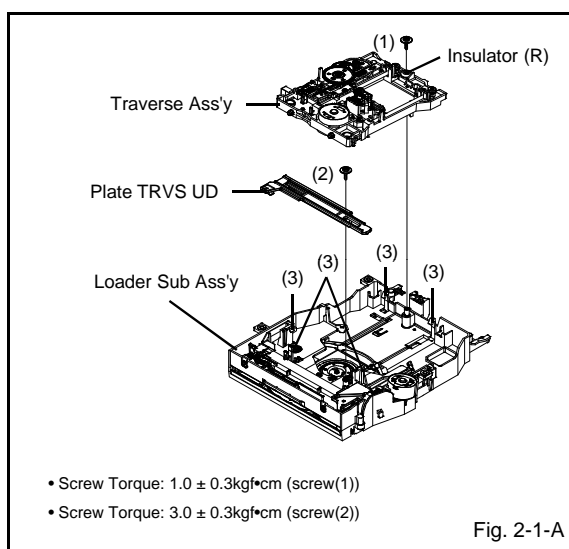
## 2. REMOVAL OF DVD DECK PARTS

### NOTE

1. Disassemble only the DVD DECK PARTS parts listed here. Minute adjustments are needed if the disassembly is done. If the repair is needed except listed parts, replace the DVD MECHA ASS'Y.

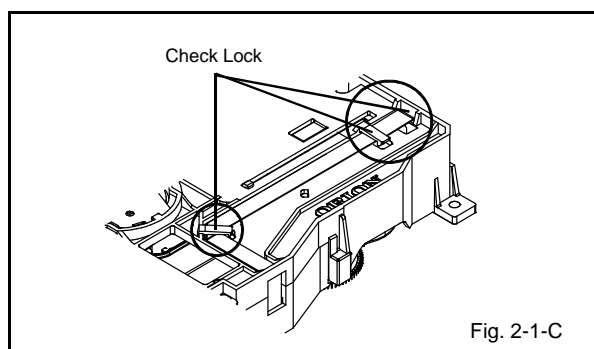
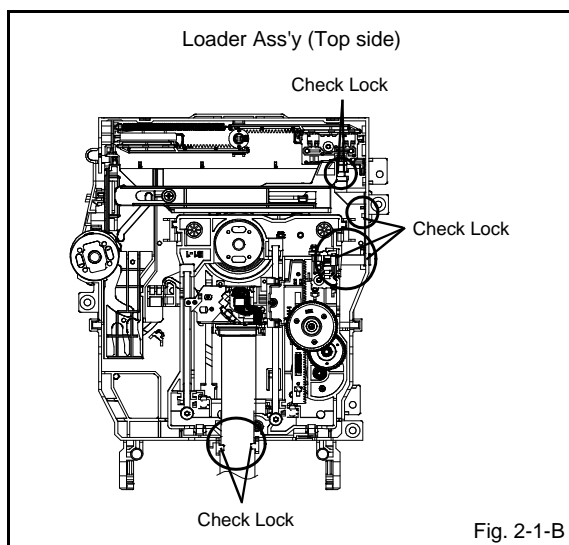
### 2-1: TRAVERSE ASS'Y/LOADING MOTOR PCB ASS'Y/ PLATE TRVS UD (Refer to Fig. 2-1-A)

1. Remove the screw (1).
2. Remove the screw (2).
3. Unlock the 5 supports (3).
4. Remove the Insulator (R) from the Loader Ass'y.
5. Remove the Traverse Ass'y and Plate Trvs Ud.



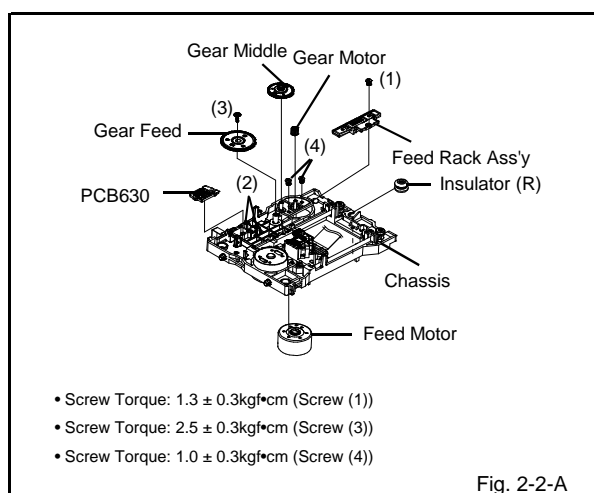
### NOTE

1. In case of the Traverse Ass'y installation, hook the wire on the Loader Ass'y as shown Fig. 2-1-B to Fig. 2-1-C.



### 2.2: INSULATOR (R)/FEED RACK ASS'Y/ PCB630/GEAR MIDDLE/GEAR FEED/ FEED MOTOR/GEAR MOTOR (Refer to Fig. 2-2-A)

1. Remove the Insulator (R).
2. Remove the screw (1).
3. Remove the Feed Rack Ass'y.
4. Unlock the 2 supports (2).
5. Remove the PCB630.
6. Remove the screw (3).
7. Remove the Gear Feed.
8. Remove the Gear Middle.
9. Remove the 2 screws (4).
10. Remove the Gear Motor.
11. Remove the Feed Motor.

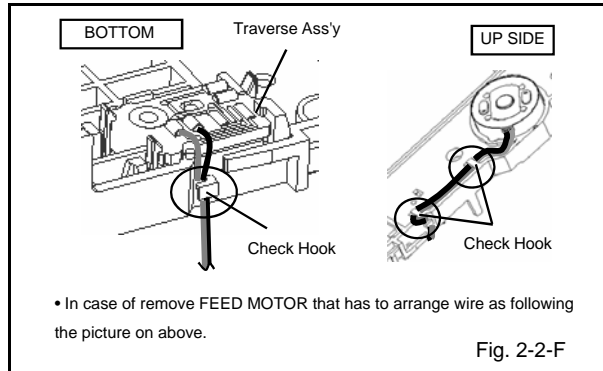
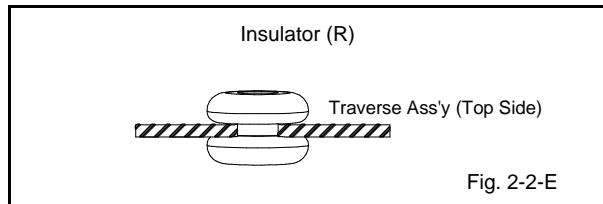
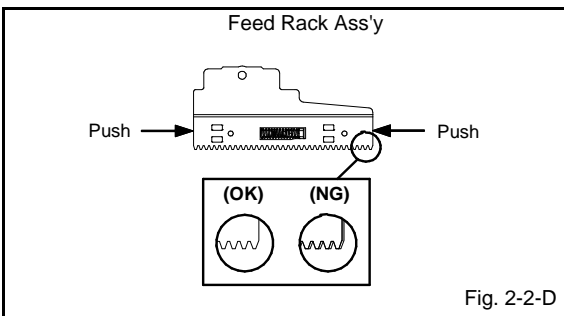
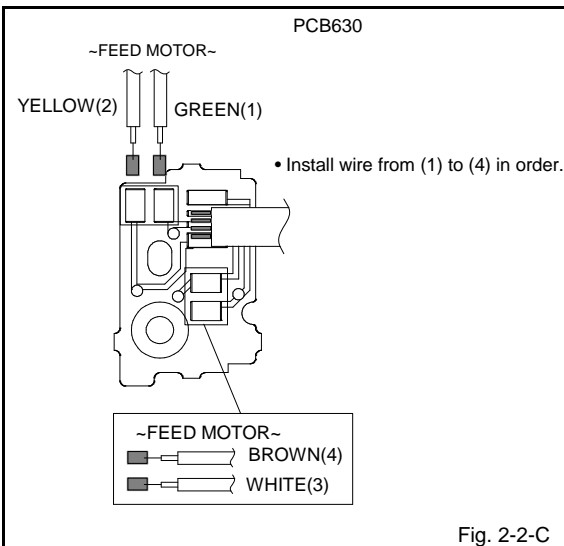
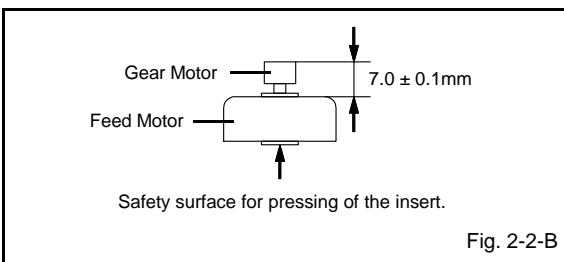




## DISASSEMBLY INSTRUCTIONS

### NOTE

1. In case of the Gear Motor installation, check if the value of the Fig. 2-2-B is correct.
2. When installing the wire of the PCB630 install it correctly as Fig. 2-2-C.  
Manual soldering conditions
  - Soldering temperature:  $350 \pm 5^{\circ}\text{C}$
  - Soldering time: Within 4 seconds
  - Soldering combination: Sn-3.0Ag-0.5Cu
3. When installing the Feed Rack Ass'y, push both ends to align the teeth as shown Fig. 2-2-D. Then install it.
4. In case of the Insulator (R) installation, install correctly as Fig. 2-2-E.
5. After the assembly of the Traverse Ass'y, hook the wire on the Traverse Ass'y as shown Fig. 2-2-F.

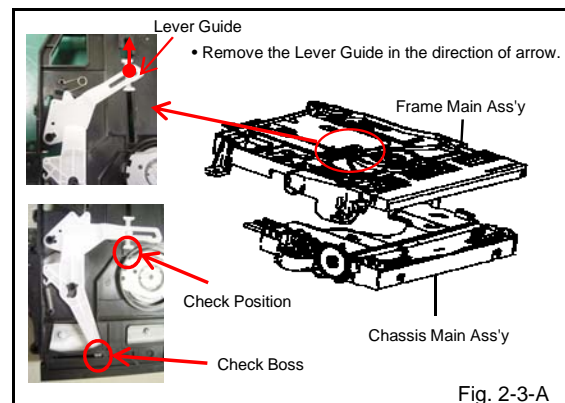


### 2.3: GEAR ROLLER/LUMIRROR WASHER/ ROLLER CONE/SHAFT ROLLER/ LOADING MOTOR PCB/LOADING MOTOR/ GEAR WORM/RACK LEVER (Refer to Fig. 2-3-B)

1. Remove the 3 screws (1).
2. Remove the Chassis Main Ass'y.
3. Remove the Roller Ass'y.
4. Remove the Gear Roller.
5. Remove the Lumirror Washer.
6. Remove the Roller Cone.
7. Remove the Shaft Roller .
8. Remove the screw (2).
9. Remove the Loading Motor PCB Ass'y.
10. Remove the screw (3).
11. Remove the Loading Motor.
12. Remove the Gear Worm.
13. Remove the Rack Lever.

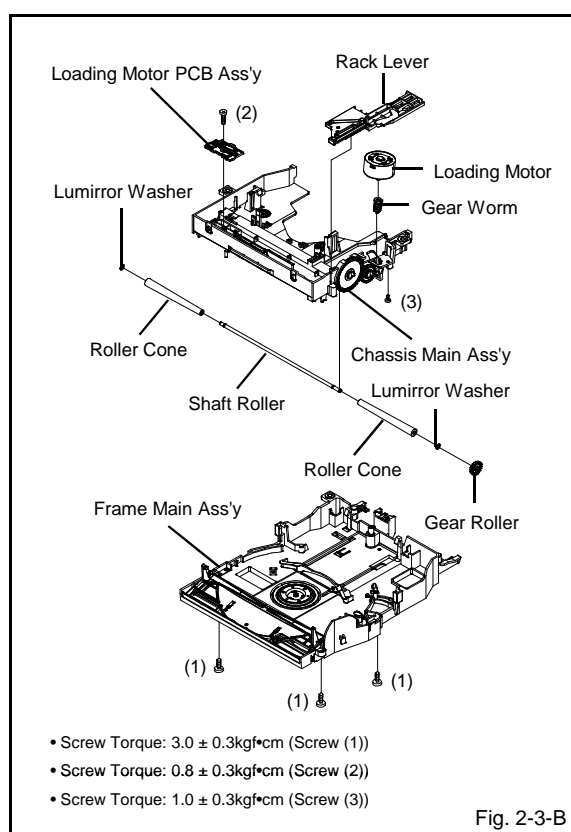
### NOTE

1. When Chassis Main Ass'y is removed, it is necessary to change the position of Lever Disc and Guide Disc.
2. In case of the Chassis Main Ass'y, check position Lever Disc, Lever Guide and Boss of Rack Disc Sensor as shown Fig. 2-3-A.



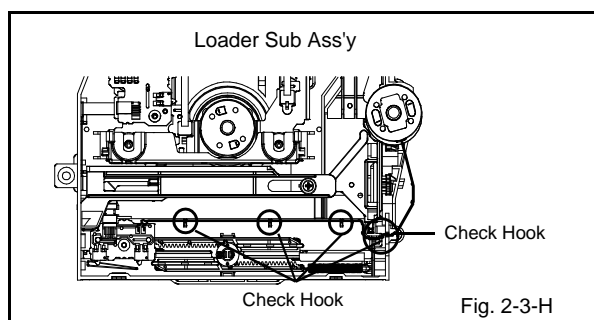
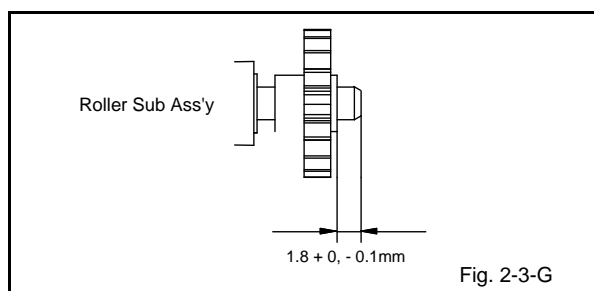
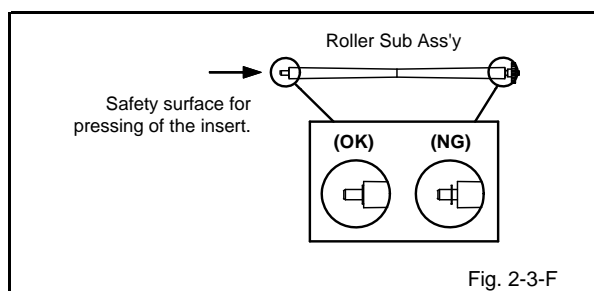
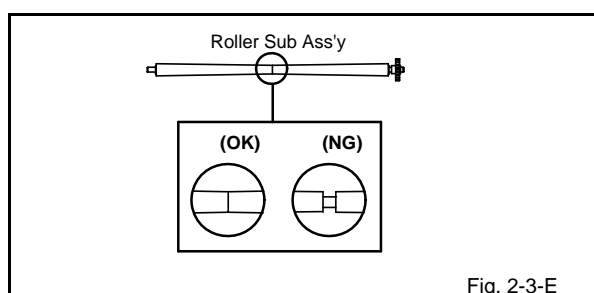
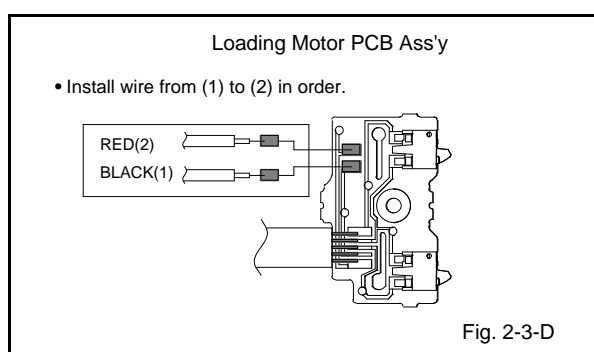
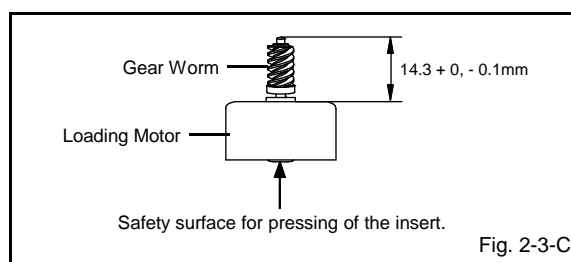


## DISASSEMBLY INSTRUCTIONS



### NOTE

1. In case of the Gear Worm installation, check if the value of the Fig. 2-3-C is correct.
2. When installing the wire of the Loading Motor PCB Ass'y, install it correctly as Fig. 2-3-D.  
 Manual soldering conditions
  - Soldering temperature:  $350 \pm 5^\circ\text{C}$
  - Soldering time: Within 4 seconds
  - Soldering combination: Sn-3.0Ag-0.5Cu
3. In case of the Roller Cone installation, install correctly as Fig. 2-3-E.
4. In case of the Lumirror Washer installation, install correctly as Fig. 2-3-F.
5. In case of the Gear Roller installation, check if the value of the Fig. 2-3-G is correct.
6. After the assembly of the Loader Sub Ass'y, hook the wire on the Loader Sub Ass'y as shown Fig. 2-3-H.

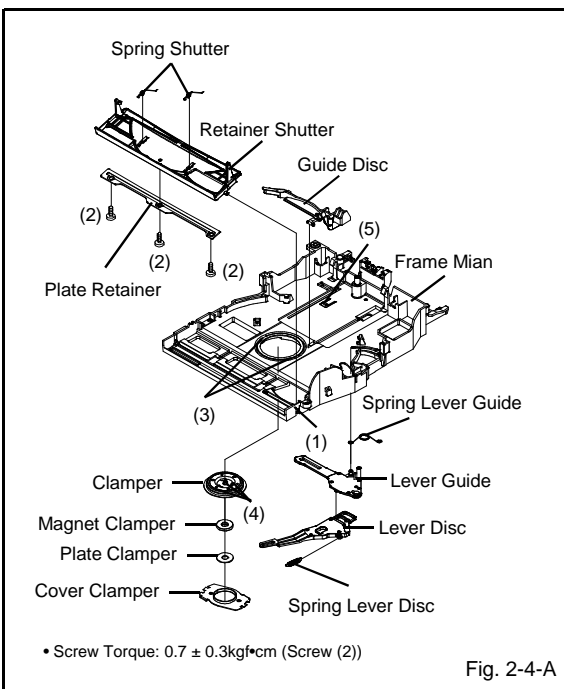




## DISASSEMBLY INSTRUCTIONS

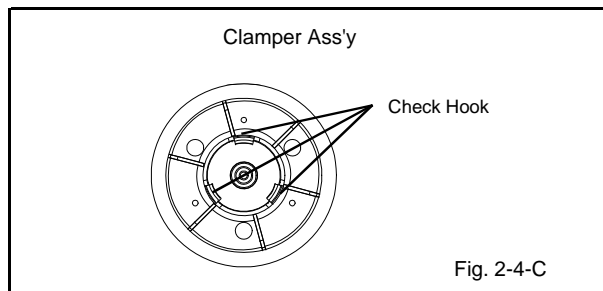
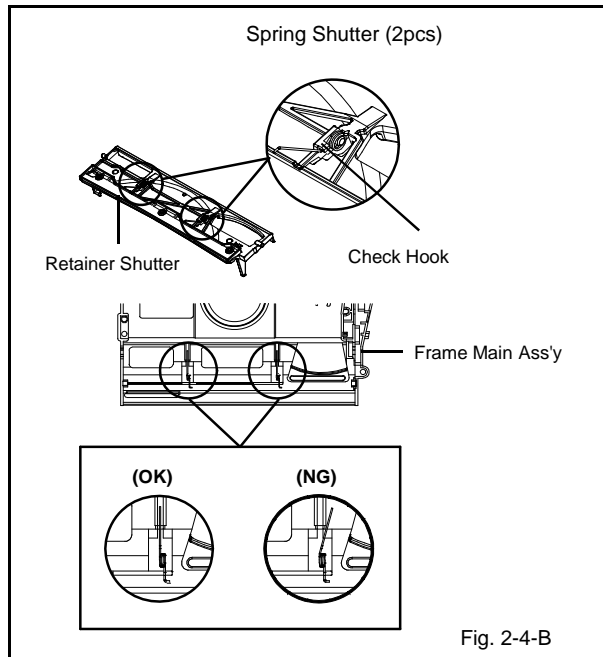
### 2.4: SPRING SHUTTER/PLATE RETAINER/ RETAINER SHUTTER/COVER CLAMPER/ PLATE CLAMPER/MAGNET CLAMPER/ CLAMPER/GUIDE DISC/LEVER DISC/ SPRING LEVER GUIDE/SPRING LEVER DISC/ LEVER DISC (Refer to Fig. 2-4-A)

1. Unlock the support (1).
2. Remove the Retainer Shutter Ass'y.
3. Remove the Spring Shutter.
4. Remove the 3 screws (2).
5. Remove the Plate Retainer.
6. Remove the Retainer Shutter.
7. Unlock the 2 supports (3).
8. Remove the Cover Clamper.
9. Unlock the 3 supports (4).
10. Remove the Plate Clamper.
11. Remove the Magnet Clamper.
12. Remove the Clamper.
13. Unlock the support (5).
14. Remove the Guide Disc.
15. Remove the Lever Guide.
16. Remove the Spring Lever Guide.
17. Remove the Spring Lever Disc.
18. Remove the Lever Disc.



#### NOTE

1. In case of the Retainer Shutter Ass'y installation, check if the value of the Fig. 2-4-B is correct.
2. In case of the Clamper Ass'y installation, check if the value of the Fig. 2-4-C is correct.

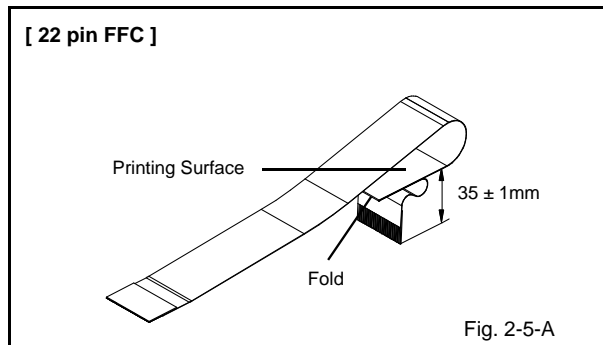


### 2-5: FFC WIRE HANDLING

1. When installing the FFC, fold it correctly and install it as shown from Fig. 2-5-A to Fig. 2-5-D.

#### NOTE

1. Do not make the folding lines except the specified positions for the FFC.





# DISASSEMBLY INSTRUCTIONS

Install the position (A) and (B)

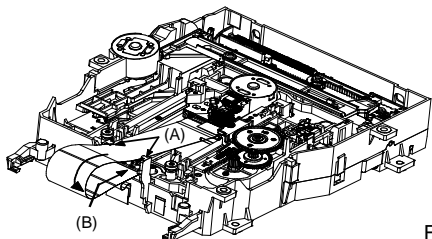


Fig. 2-5-B

[ 4 pin FFC ]

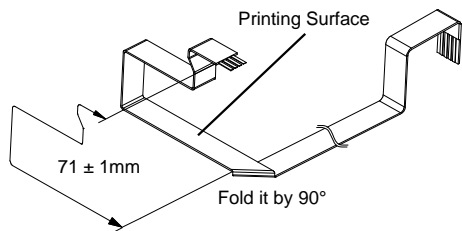


Fig. 2-5-C

[ 5 pin FFC ]

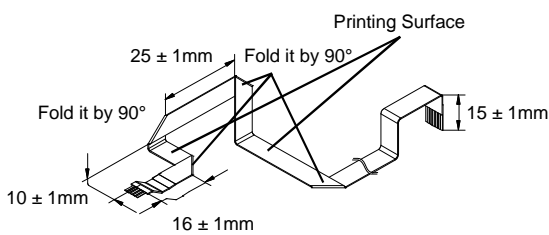


Fig. 2-5-D



## DISASSEMBLY INSTRUCTIONS

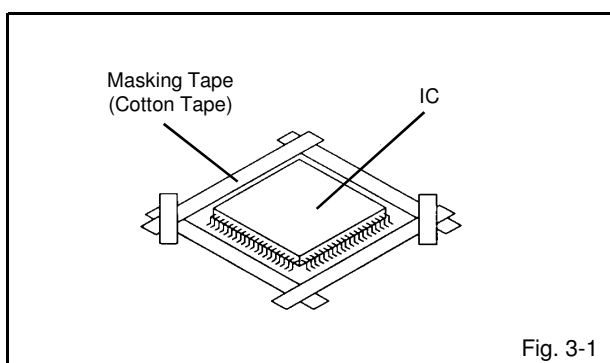
### 3. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

#### REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. (Refer to Fig. 3-1.)

#### NOTE

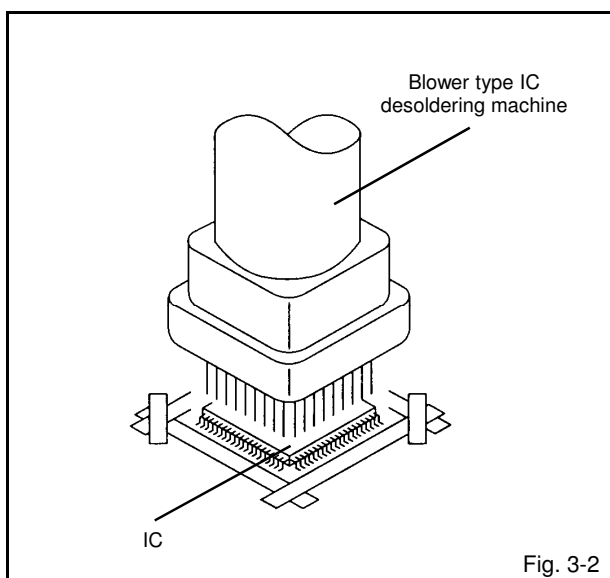
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. (Refer to Fig. 3-2.)

#### NOTE

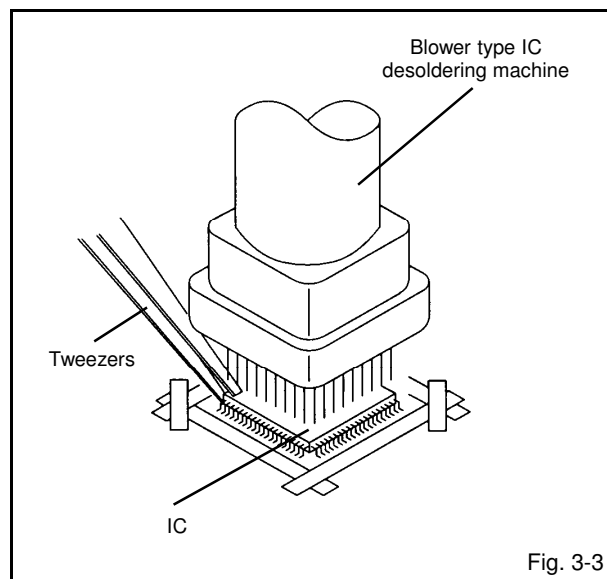
Do not rotate or move the IC back and forth, until IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 3-3.)

#### NOTE

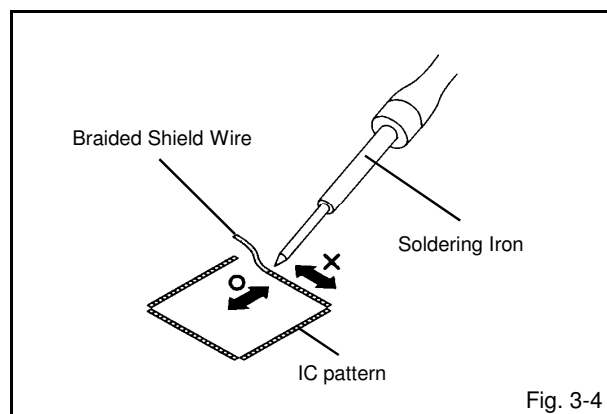
Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.



4. Peel off the Masking Tape.
5. Absorb the solder left on the pattern using the Braided Shield Wire. (Refer to Fig. 3-4.)

#### NOTE

Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.

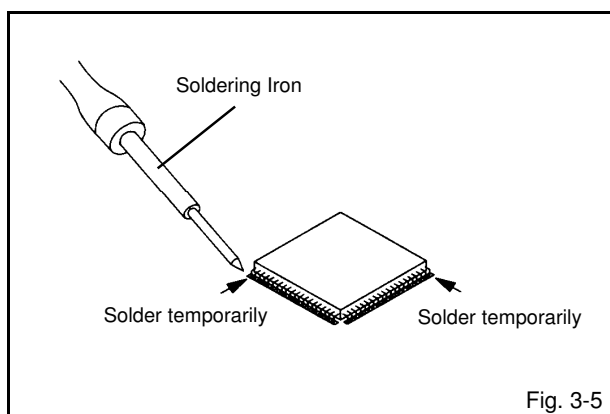




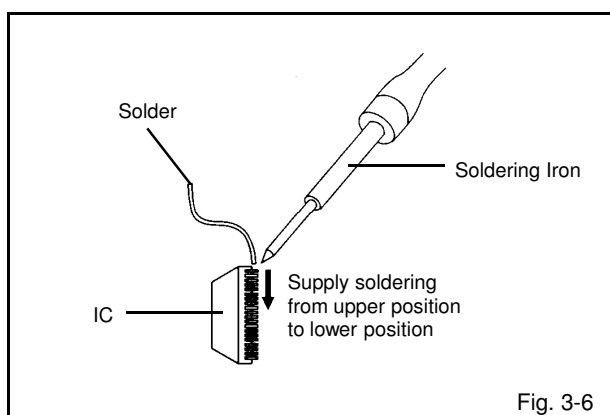
## DISASSEMBLY INSTRUCTIONS

### INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. (Refer to Fig. 3-5.)



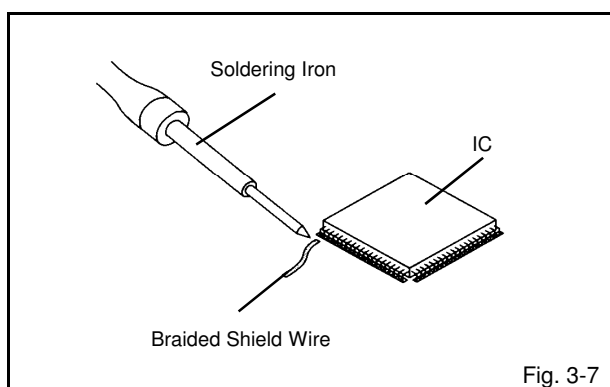
2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. (Refer to Fig. 3-6.)



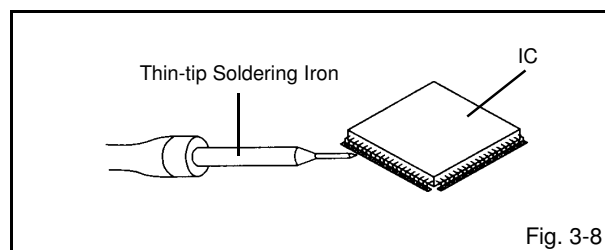
3. Absorb the solder left on the lead using the Braided Shield Wire. (Refer to Fig. 3-7.)

### NOTE

Do not absorb the solder to excess.



4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. (Refer to Fig. 3-8.)



5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass. Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

### NOTE

When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.



## SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than a the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remocon Key	Standard Time	Operations
TV mode	VOL. DOWN (Minimum)	0	2 sec.	Releasing of V-CHIP PASSWORD.
TV mode	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
DVD mode (No disc)	VOL. DOWN (Minimum)	4	2 sec.	Initialization of factory DVD data.
ALL mode	VOL. DOWN (Minimum)	6	2 sec.	POWER ON total hours are displayed on the screen. Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
TV mode	VOL. DOWN (Minimum)	8	2 sec.	Check of the SUM DATA and MICON VERSION on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
ALL mode	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).
DVD mode (No disc)	STOP	1	2 sec.	Check of the firmware version. Refer to the "RE-WRITE FOR DVD FIRMWARE". NOTE: Do not use this for normal servicing.
DVD mode (No disc)	STOP	7	2 sec.	Releasing of PARENTAL LOCK. Refer to the "PARENTAL CONTROL - RATING LEVEL".



## WHEN REPLACING EEPROM (MEMORY) IC

### CONFIRMATION OF CHECK SUM, POWER ON TOTAL HOURS AND MICON VERSION

Initial total of MEMORY IC, POWER ON total hours and MICON VERSION can be checked on the screen. Total hours are displayed in 16 system of notation.

**NOTE: If you set a factory initialization, the total hours is reset to "0".**

**Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding**

1. Turn on the POWER, and set to the ALL mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(8)** on the remote control for more than 2 seconds.
4. After the confirmation of each check sum, turn off the power.

NOTE: The each item value might be different according to each set.

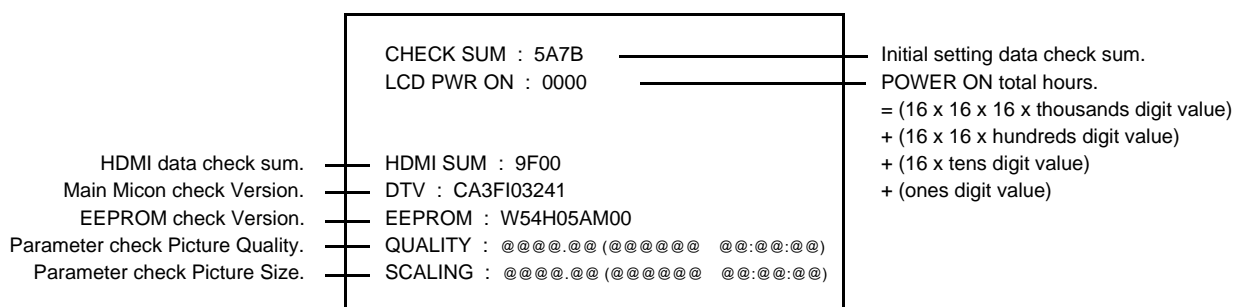


FIG. 1

### CONFIRMATION OF INITIAL DATA

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the ALL mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds.  
ADDRESS and DATA should appear as FIG 2.

**NOTE:** No need to set data other position than 0200~0F79.

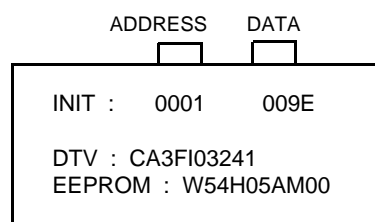


FIG. 2

4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press LEFT/RIGHT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing LEFT/RIGHT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

**After the data input, set to the initializing of shipping.**

10. Turn on the Power.
  11. Set the VOLUME to minimum.
  12. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 2 seconds.
  13. After the finishing of the initializing of shipping, the unit will turn off automatically.
- The unit will now have the correct DATA for the new MEMORY IC.



# ELECTRICAL ADJUSTMENTS

## 1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

### CAUTION

- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease (**YG6260M**) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor).

**Prepare the following measurement tools for electrical adjustments.**

1. Pattern Generator

### On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button (**9**) on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in **Fig. 1-1**.

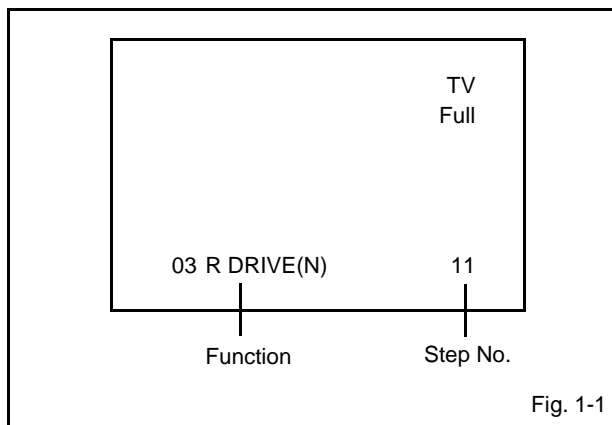


Fig. 1-1

3. Use the CH. UP/DOWN button or Channel button (**0-9**) on the remote control to select the options shown in **Fig. 1-2**.
4. Press the SETUP/TV MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for TV, AV, COMPONENT, HDMI, PC and DVD mode, press the INPUT SELECT button on the remote control.
6. Receive the DIGITAL broadcasting.
7. To display the adjustment screen for DTV mode, select the digital channel.
8. Press the VOL.DOWN button on the set and the channel (**9**) on the remote control for more than 2 seconds.

NO. FUNCTION	NO. FUNCTION
03 R DRIVE(N)	35 TINT
04 R CUTOFF(N)	36 SHARP H1 MAX
05 G DRIVE(N)	37 SHARP H1 MIN
06 G CUTOFF(N)	38 SHARP H2 MAX
07 B DRIVE(N)	39 SHARP H2 MIN
08 B CUTOFF(N)	40 SHARP H3 MAX
09 R DRIVE(C)	41 SHARP H3 MIN
10 R CUTOFF(C)	42 SHARP H4 MAX
11 G DRIVE(C)	43 SHARP H4 MIN
12 G CUTOFF(C)	44 SHARP H5 MAX
13 B DRIVE(C)	45 SHARP H5 MIN
14 B CUTOFF(C)	46 SHARP V1 MAX
15 R DRIVE(W)	47 SHARP V1 MIN
16 R CUTOFF(W)	48 SHARP V2 MAX
17 G DRIVE(W)	49 SHARP V2 MIN
18 G CUTOFF(W)	50 CONTRAST CENTER
19 B DRIVE(W)	51 CONTRAST MAX
20 B CUTOFF(W)	52 CONTRAST MIN
29 BAK LIGHT CENT	53 COLOR CENTER
30 BAK LIGHT MAX	54 COLOR MAX
31 BAK LIGHT MIN	55 COLOR MIN
32 BRIGHTNESS CENT	58 CONTRAST 40
33 BRIGHTNESS MAX	
34 BRIGHTNESS MIN	

Fig. 1-2

## 2. BASIC ADJUSTMENTS

### 2-1: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Press the INPUT SELECT button on the remote control to set to the AV mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 1-2** and press the channel button (**03**) on the remote control to select "R DRIVE(N)".
6. Press the CH. UP/DOWN button on the remote control to select the "R CUTOFF(N)", "B DRIVE(N)", "B CUTOFF(N)", "R DRIVE(C)", "R CUTOFF(C)", "B DRIVE(C)", "B CUTOFF(C)", "R DRIVE(W)", "R CUTOFF(W)", "B DRIVE(W)" or "B CUTOFF(W)".
7. Adjust the LEFT/RIGHT button on the remote control to whiten the R DRIVE(N), R CUTOFF(N), B DRIVE(N), B CUTOFF(N), R DRIVE(C), R CUTOFF(C), B DRIVE(C), B CUTOFF(C), R DRIVE(W), R CUTOFF(W), B DRIVE(W) and B CUTOFF(W) at each step tone sections equally.
8. Perform the above adjustments 6 and 7 until the white color is achieved.



## ELECTRICAL ADJUSTMENTS

### 2-2: BRIGHTNESS CENT

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "126".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "127".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Playback the DVD(480i) disc. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
20. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "124".
21. Check if the picture is normal.
22. Playback the DVD(480i) disc. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
26. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "128".
27. Check if the picture is normal.
28. Playback the DVD(480i) disc.
29. Press the INPUT SELECT button on the remote control to set to the DVD mode.
30. Using the remote control, set the brightness and contrast to normal position.
31. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
32. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "127".
33. Check if the picture is normal.

### 2-3: CONTRAST MAX

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "154".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "157".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Playback the DVD(480i) disc. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
20. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "153".
21. Check if the picture is normal.
22. Playback the DVD(480i) disc. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
26. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "127".
27. Check if the picture is normal.
28. Playback the DVD(480i) disc.
29. Press the INPUT SELECT button on the remote control to set to the DVD mode.
30. Using the remote control, set the brightness and contrast to normal position.
31. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
32. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "153".
33. Check if the picture is normal.



## ELECTRICAL ADJUSTMENTS

### 2-4: CONTRAST CENTER

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "109".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "110".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Playback the DVD(480i) disc. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
20. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "112".
21. Check if the picture is normal.
22. Playback the DVD(480i) disc. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
26. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "89".
27. Check if the picture is normal.
28. Playback the DVD(480i) disc.
29. Press the INPUT SELECT button on the remote control to set to the DVD mode.
30. Using the remote control, set the brightness and contrast to normal position.
31. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
32. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "108".
33. Check if the picture is normal.

### 2-5: CONTRAST 40

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "143".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "147".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Playback the DVD(480i) disc. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
20. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "145".
21. Check if the picture is normal.
22. Playback the DVD(480i) disc. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
26. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "120".
27. Check if the picture is normal.
28. Playback the DVD(480i) disc.
29. Press the INPUT SELECT button on the remote control to set to the DVD mode.
30. Using the remote control, set the brightness and contrast to normal position.
31. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
32. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "143".
33. Check if the picture is normal.



ELECTRICAL ADJUSTMENTS

2-6: Confirmation of Fixed Value (Step No.)

Please check if the fixed values of each of the adjustment item is set correctly referring below. (TV/AV/COMPONENT/HDMI/PC/DVD/DTV)

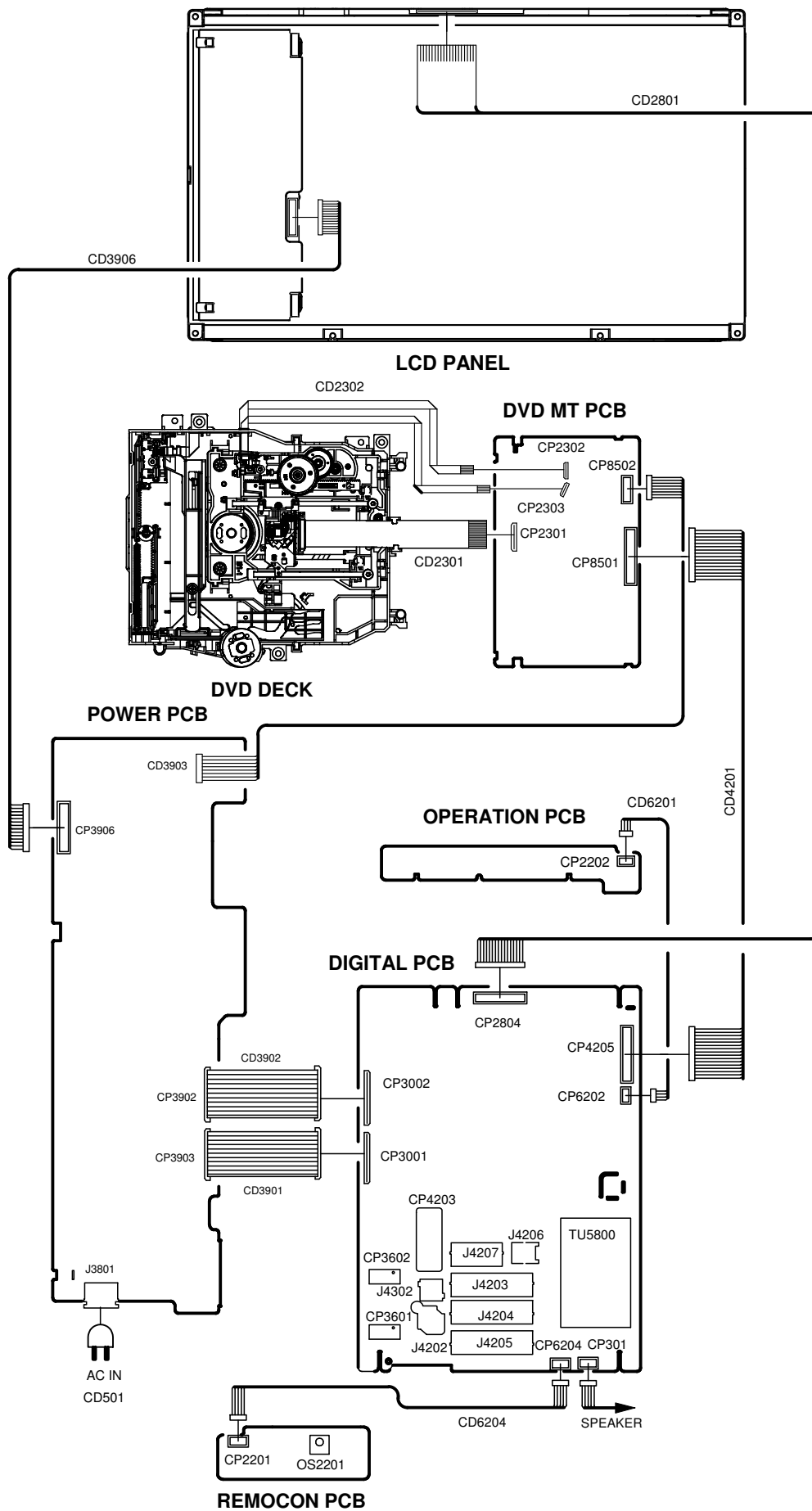
NO.	FUNCTION	TV	AV		COMPONENT				HDMI						DVI→HDMI		DVD	PC								DTV				
			CVBS	Y/C	480i	480p	720p	1080i	480i	480p	720p	1080i	1080P	VGA	VGA	XGA		640*480	720*400	800*600	1024*768	1280*768	1280*720	1360*768	480i	480p	720p	1080i	1080P	
		Step No.	Step No.	Step No.				Step No.						Step No.		Step No.	Step No.								Step No.					
3	R.DRIVE (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
4	R CUTOFF (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
5	G DRIVE (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6	G CUTOFF (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7	B DRIVE (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
8	B CUTOFF (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
9	R.DRIVE (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
10	R CUTOFF (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
11	G DRIVE (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12	G CUTOFF (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13	B DRIVE (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
14	B CUTOFF (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
15	R.DRIVE (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
16	R CUTOFF (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
17	G DRIVE (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18	G CUTOFF (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19	B DRIVE (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
20	B CUTOFF (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
29	BAK LIGHT CENT	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54		
30	BAK LIGHT MAX	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
31	BAK LIGHT MIN	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8		
32	BRIGHT CENT	129	128	128	125	127	127	127	127	127	127	127	127	127	128	128	128	127	127	127	127	127	127	127	123	123	123	123	123	
33	BRIGHT MAX	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200		
34	BRIGHT MIN	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
35	TINT	45	45	45	45	45	45	45	49	49	49	49	49	49	50	50	45	50	50	50	50	50	50	50	47	47	47	47		
36	SHARP H1 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
37	SHARP H1 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
38	SHARP H2 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
39	SHARP H2 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
40	SHARP H3 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
41	SHARP H3 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
42	SHARP H4 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
43	SHARP H4 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
44	SHARP H5 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
45	SHARP H5 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
46	SHARP V1 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
47	SHARP V1 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
48	SHARP V2 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
49	SHARP V2 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
50	CONT CENTER	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
51	CONT MAX	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
52	CONT MIN	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60		
53	COLOR CENT	182	182	182	182	182	182	182	182	182	182	182	182	182	170	170	182	170	170	170	170	170	170	170	182	182	182	182		
54	COLOR MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
55	COLOR MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
58	CONT 40	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		

NOTE: For the step no. with \* mark, please adjust it according to the situation of the set.



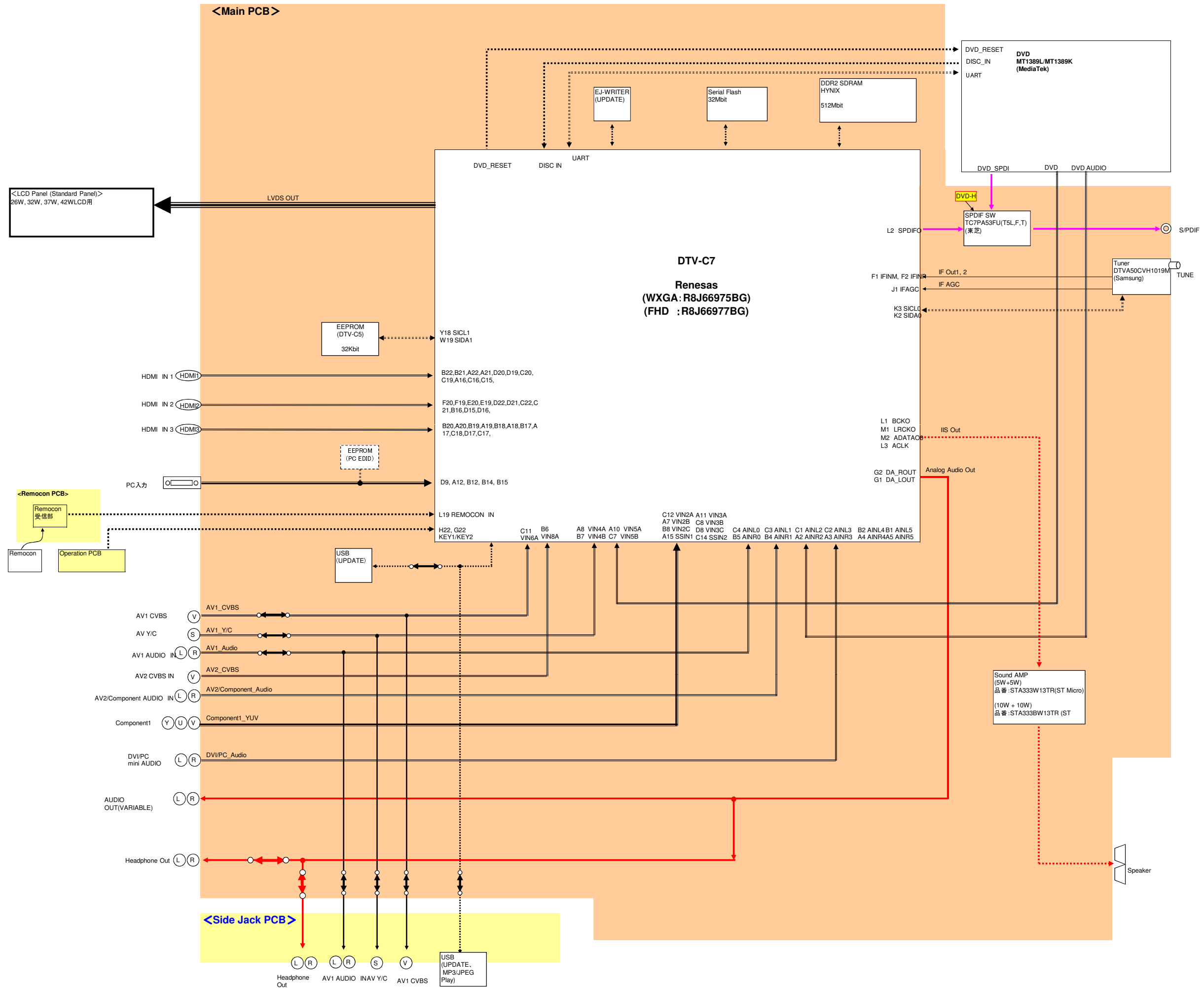
# ELECTRICAL ADJUSTMENTS

## 3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)





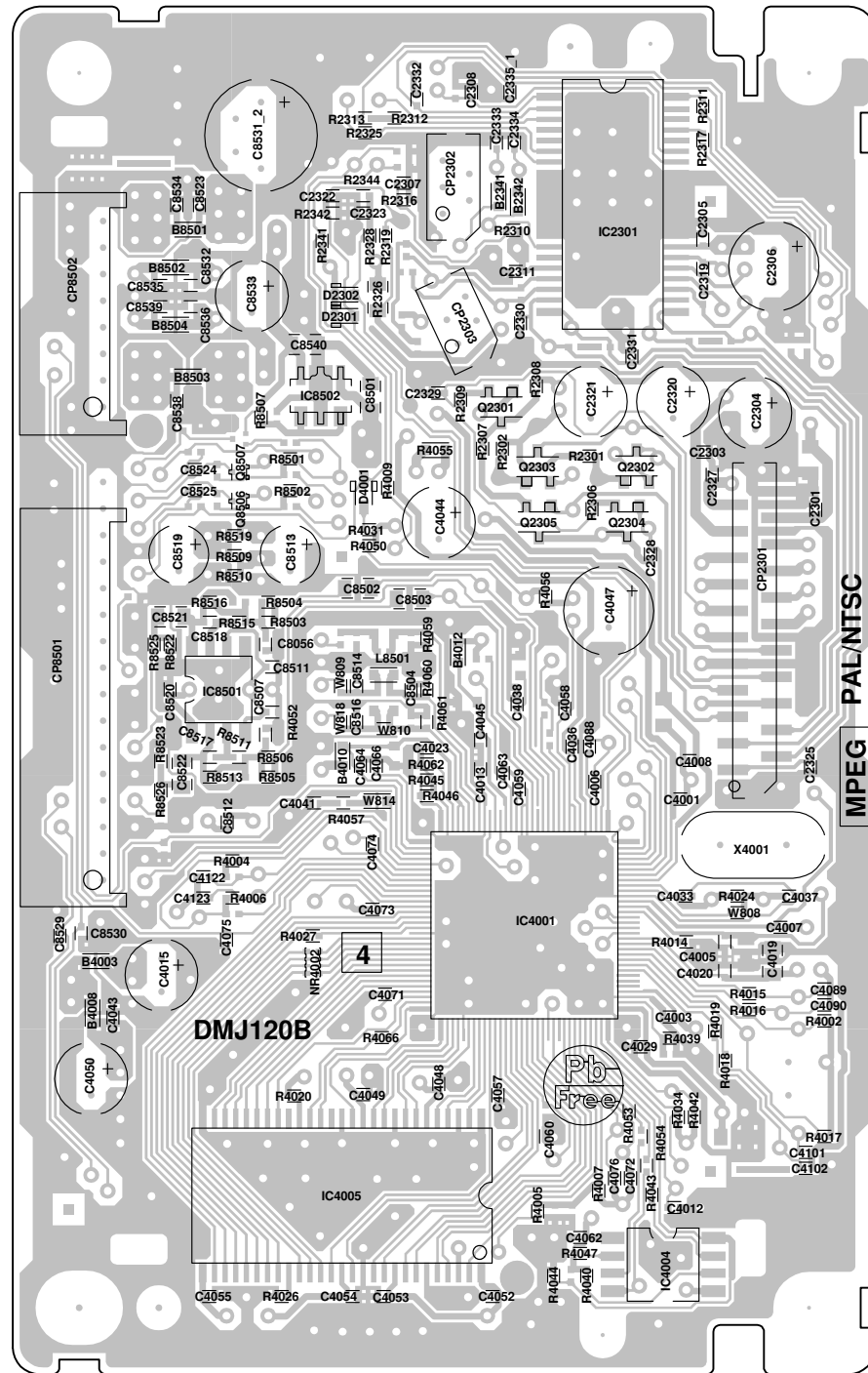
# BLOCK DIAGRAM



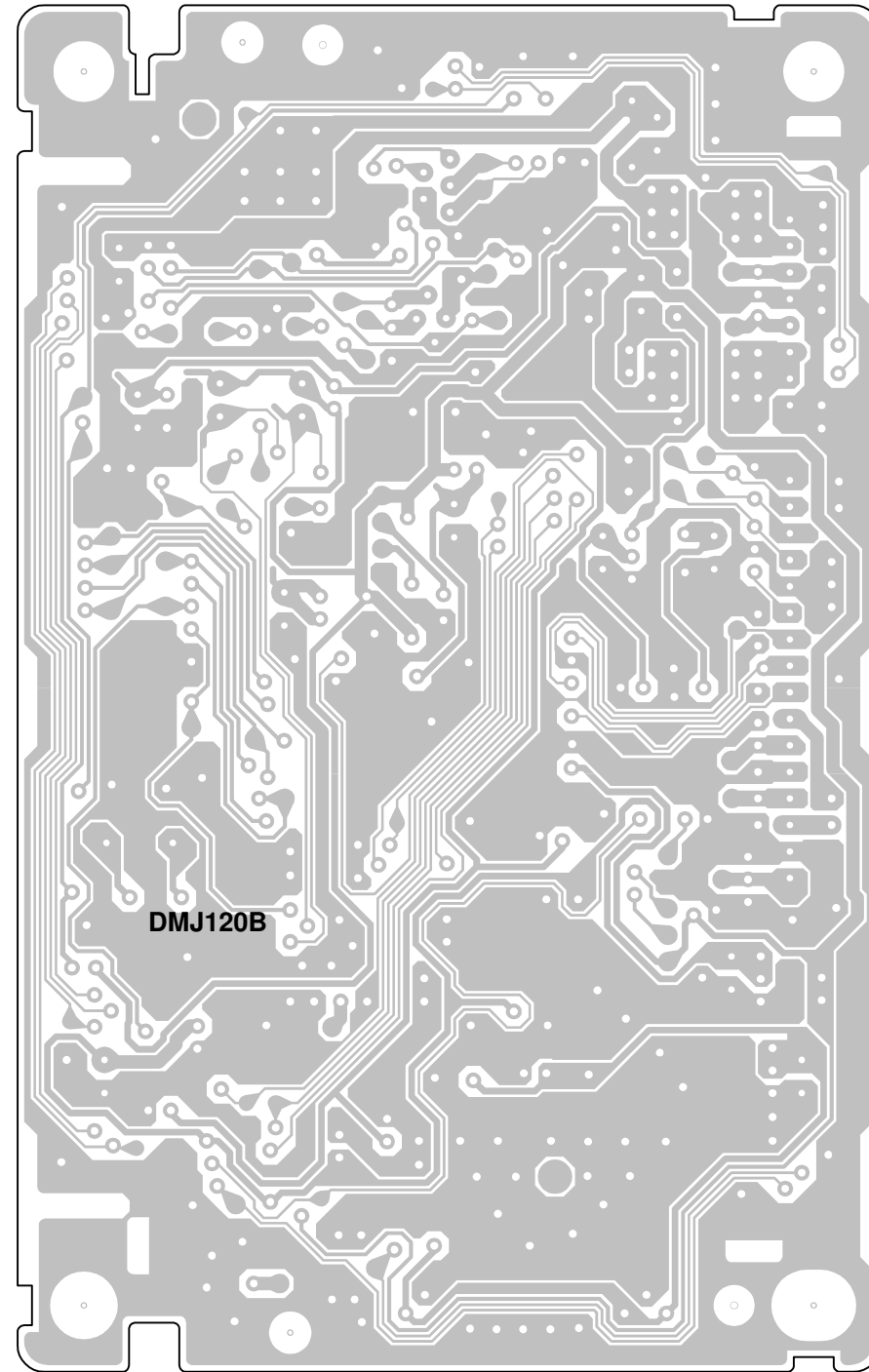


## PRINTED CIRCUIT BOARDS

### DVD MT (TOP SIDE)

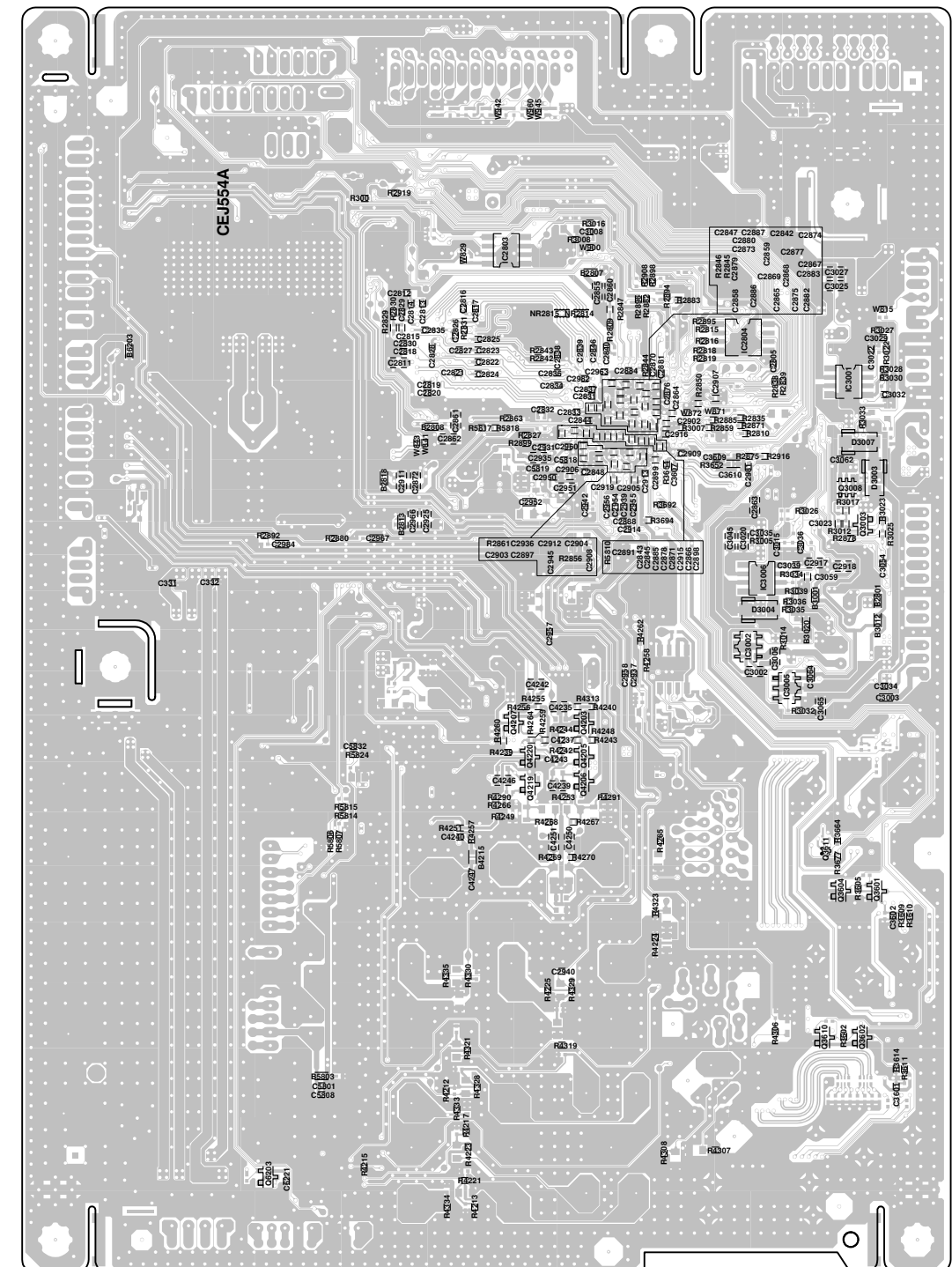


### DVD MT (BOTTOM SIDE)



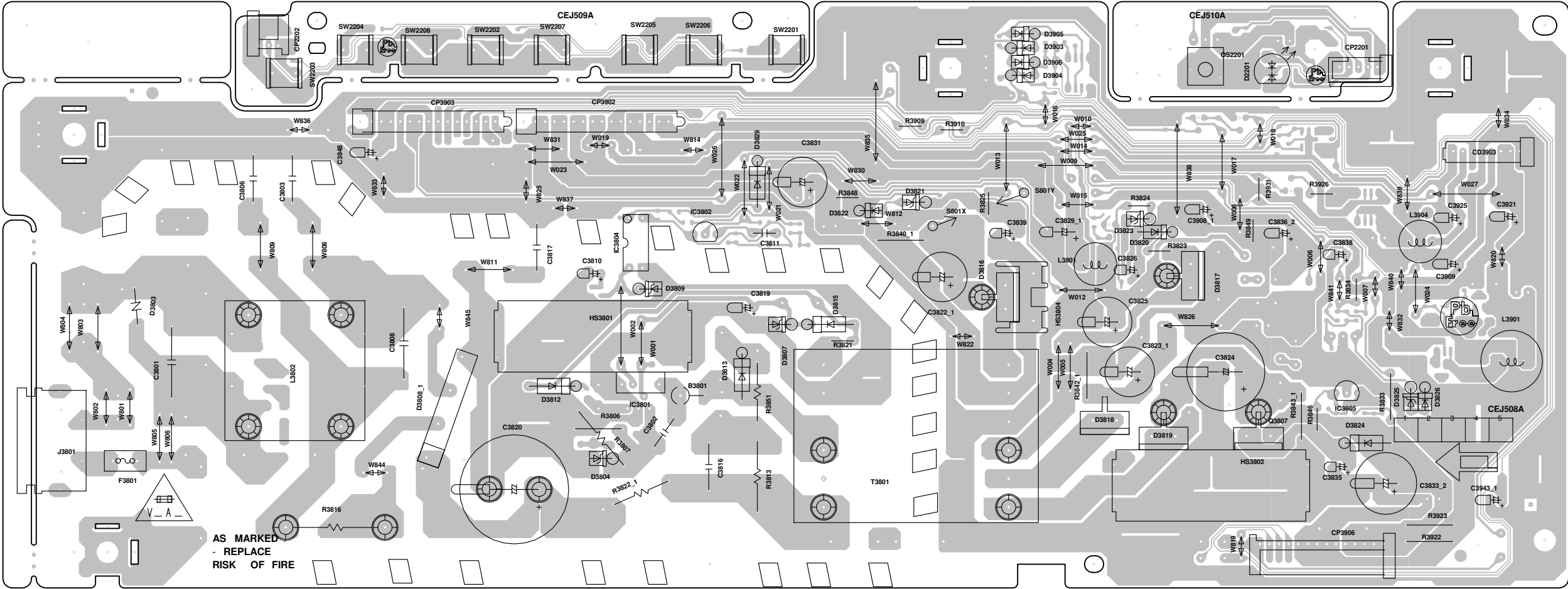


### DIGITAL (BOTTOM SIDE)



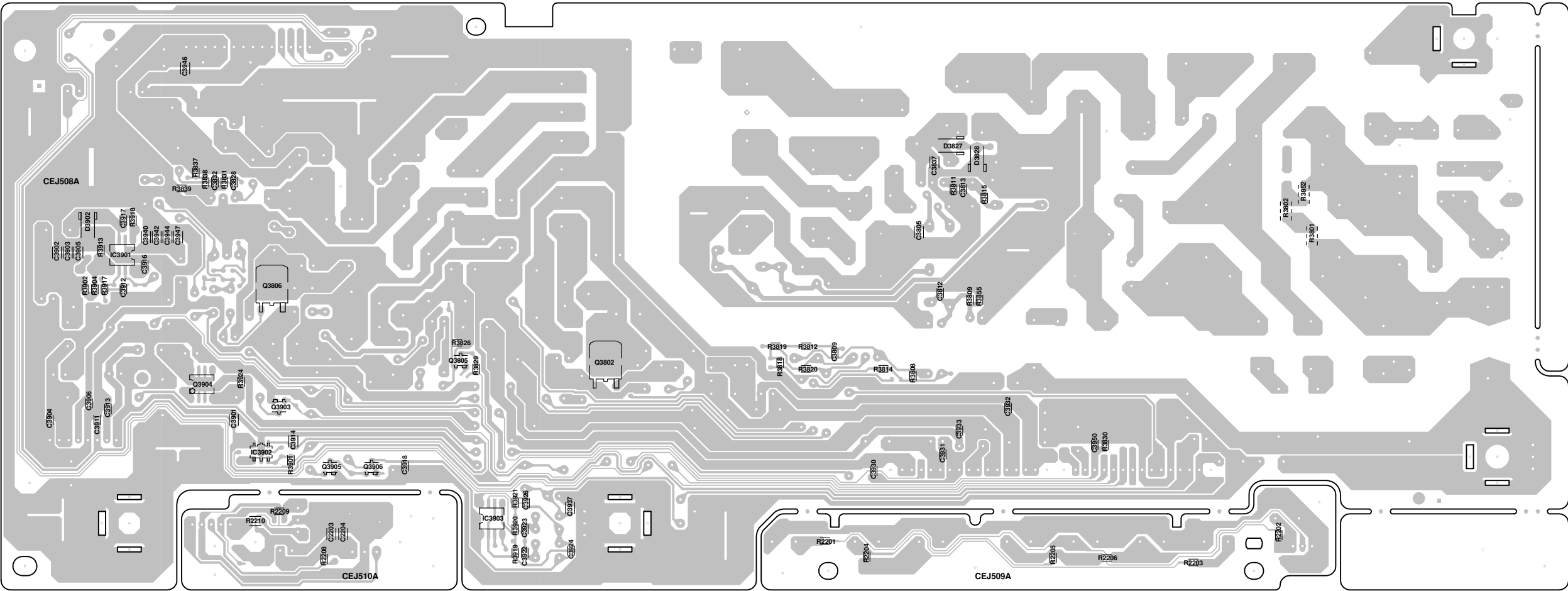


**PRINTED CIRCUIT BOARDS  
POWER/REMOCON/OPERATION (INSERTED PARTS)  
SOLDER SIDE**



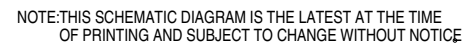


PRINTED CIRCUIT BOARDS  
POWER/REMOCON/OPERATION (CHIP MOUNTED PARTS)  
SOLDER SIDE





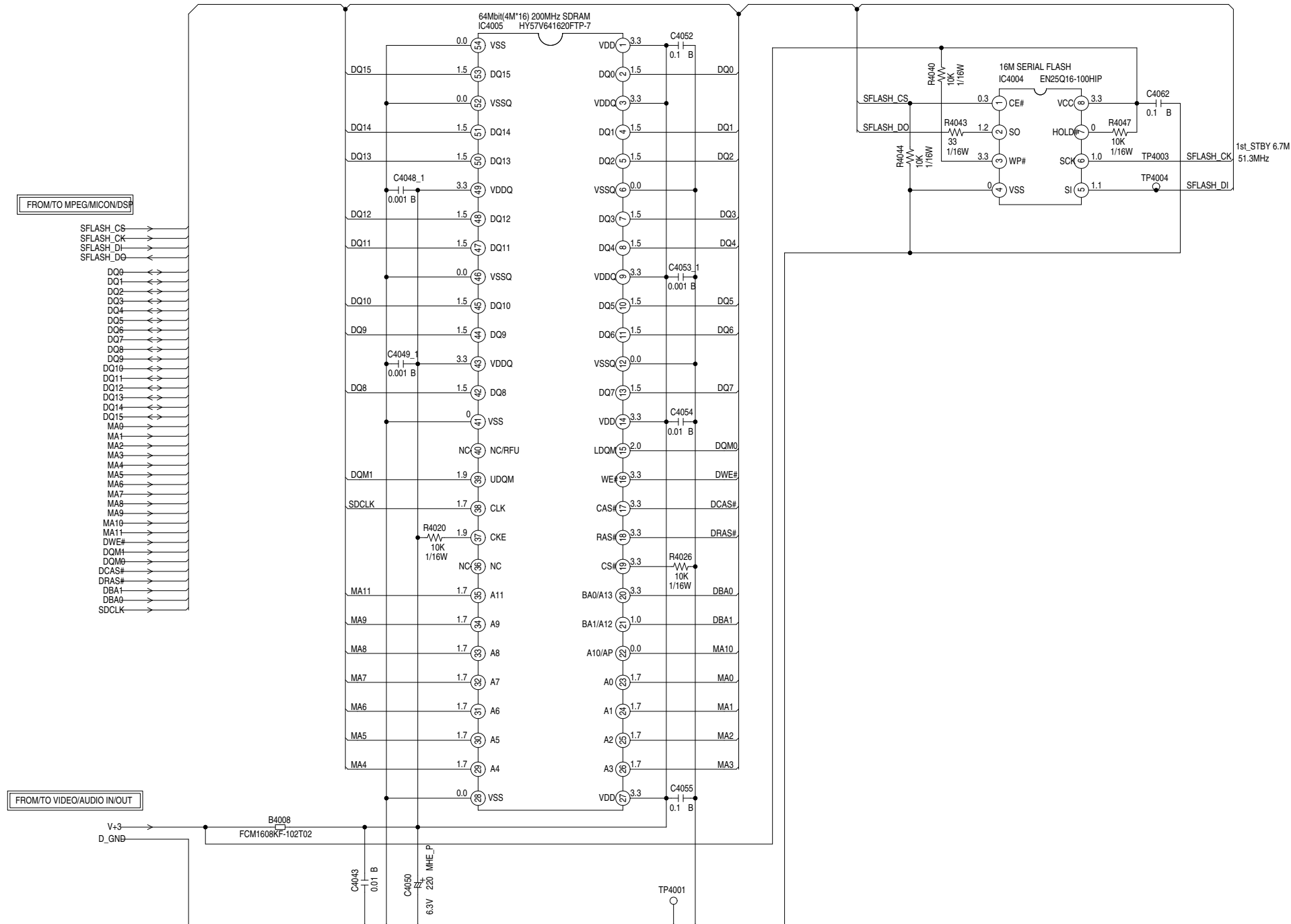
(DVD PCB)





## MEMORY/SD CARD SCHEMATIC DIAGRAM

(DVD PCB)



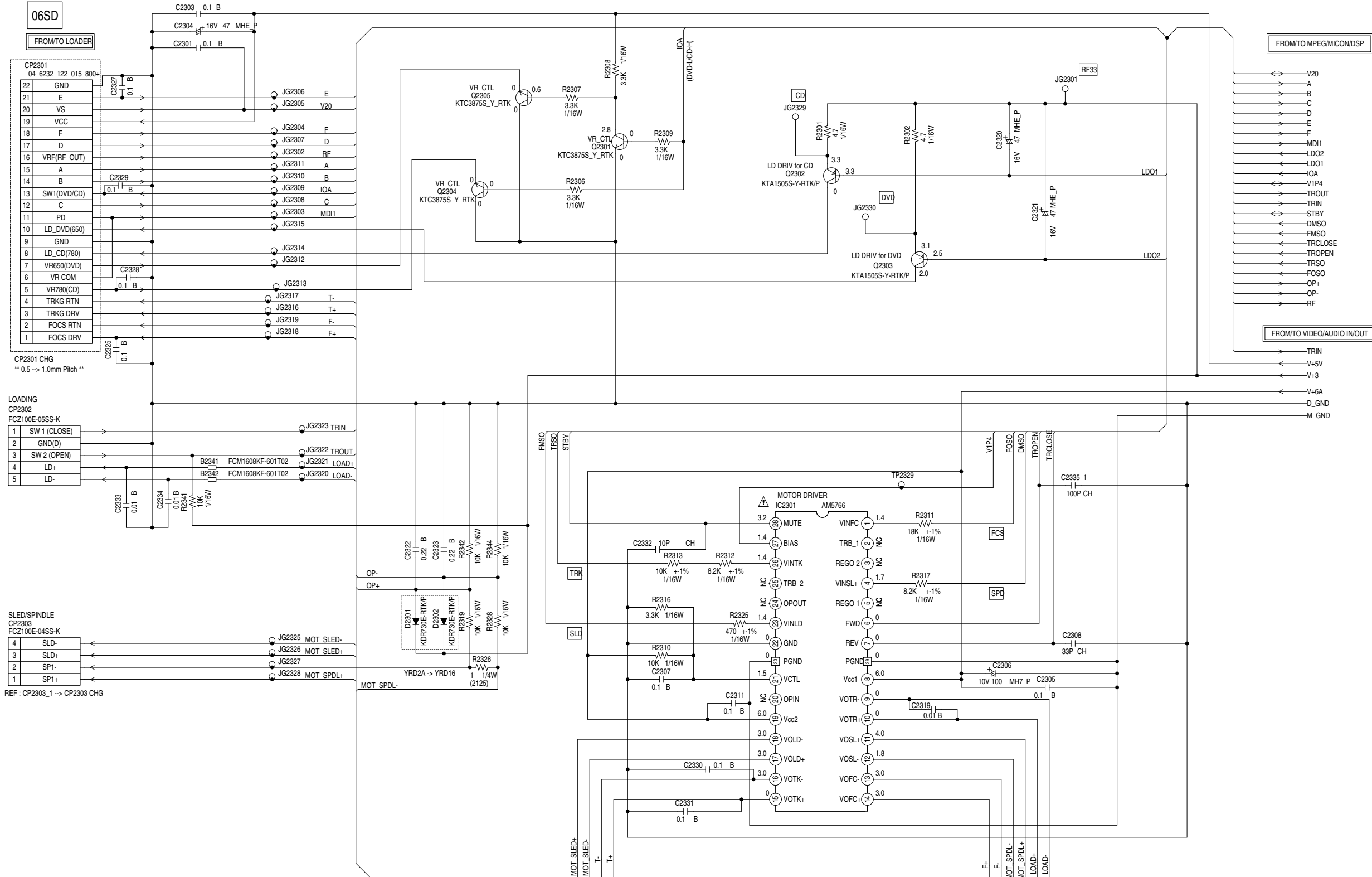
NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

PCB130  
DMJ120



## LOADER/MOTOR DRV SCHEMATIC DIAGRAM (DVD PCB)



**ATTENTION** LES PIECES REPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

**CAUTION** SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

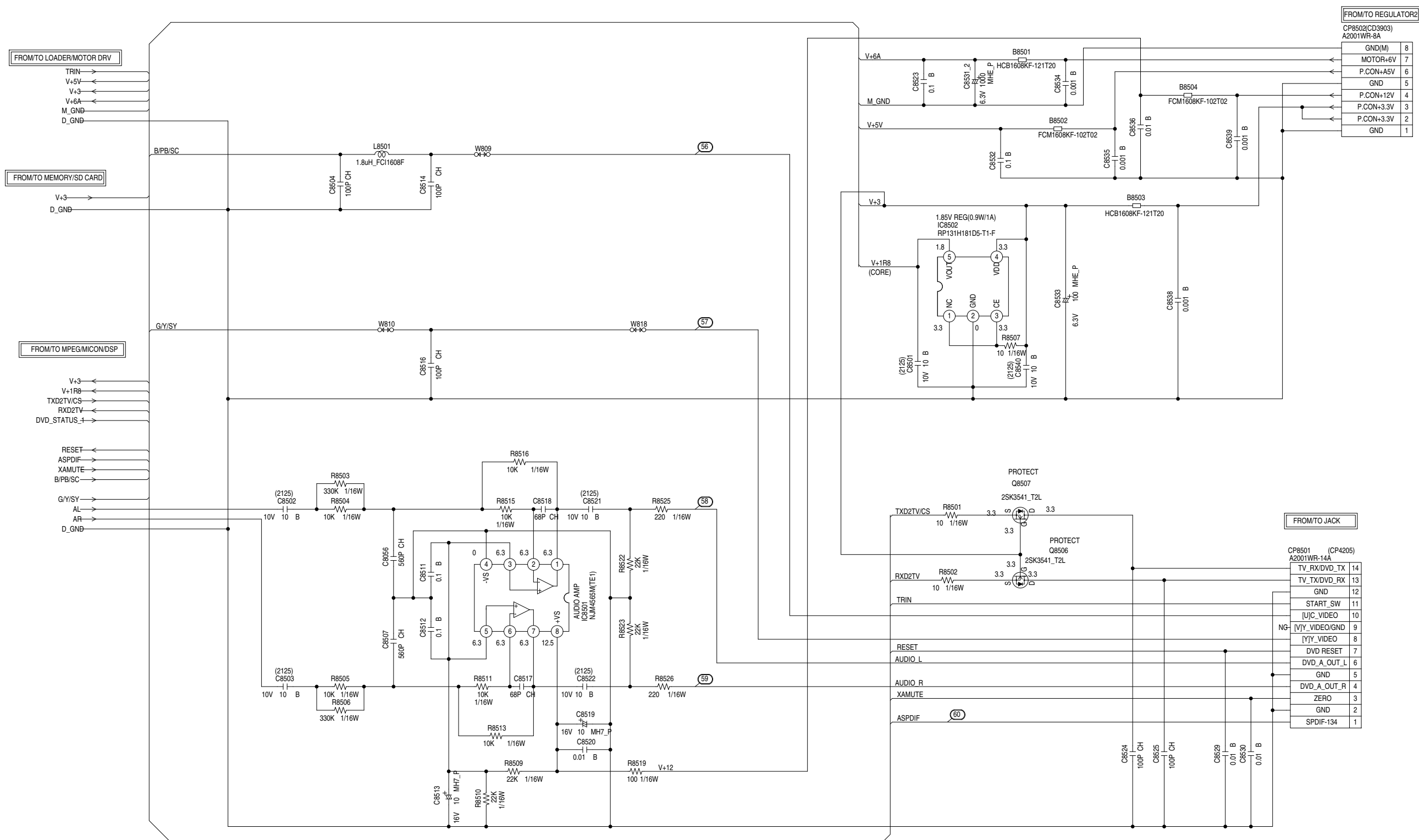
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE:THE DC VOLTAGE EACH PART WAS  
MEASURED WITH THE DIGITAL TESTER  
DURING PLAYBACK.

PCB130  
DMJ120



## VIDEO/AUDIO IN/OUT SCHEMATIC DIAGRAM (DVD PCB)



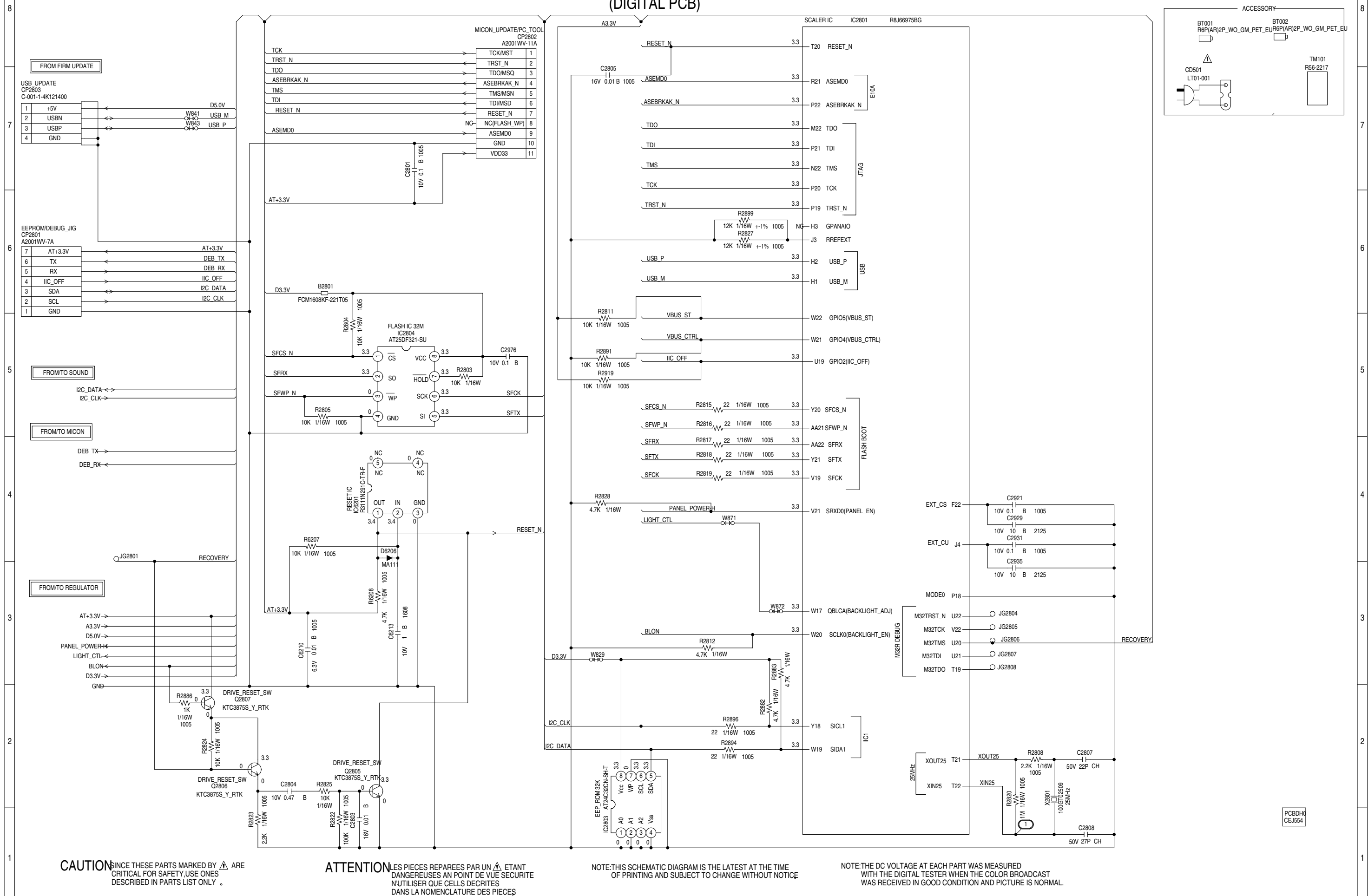
NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE EACH PART WAS  
MEASURED WITH THE DIGITAL TESTER  
DURING PLAYBACK.

PCB130  
DMJ120



## FLASH SCHEMATIC DIAGRAM (DIGITAL PCB)





DDR2 SCHEMATIC DIAGRAM  
(DIGITAL PCB)

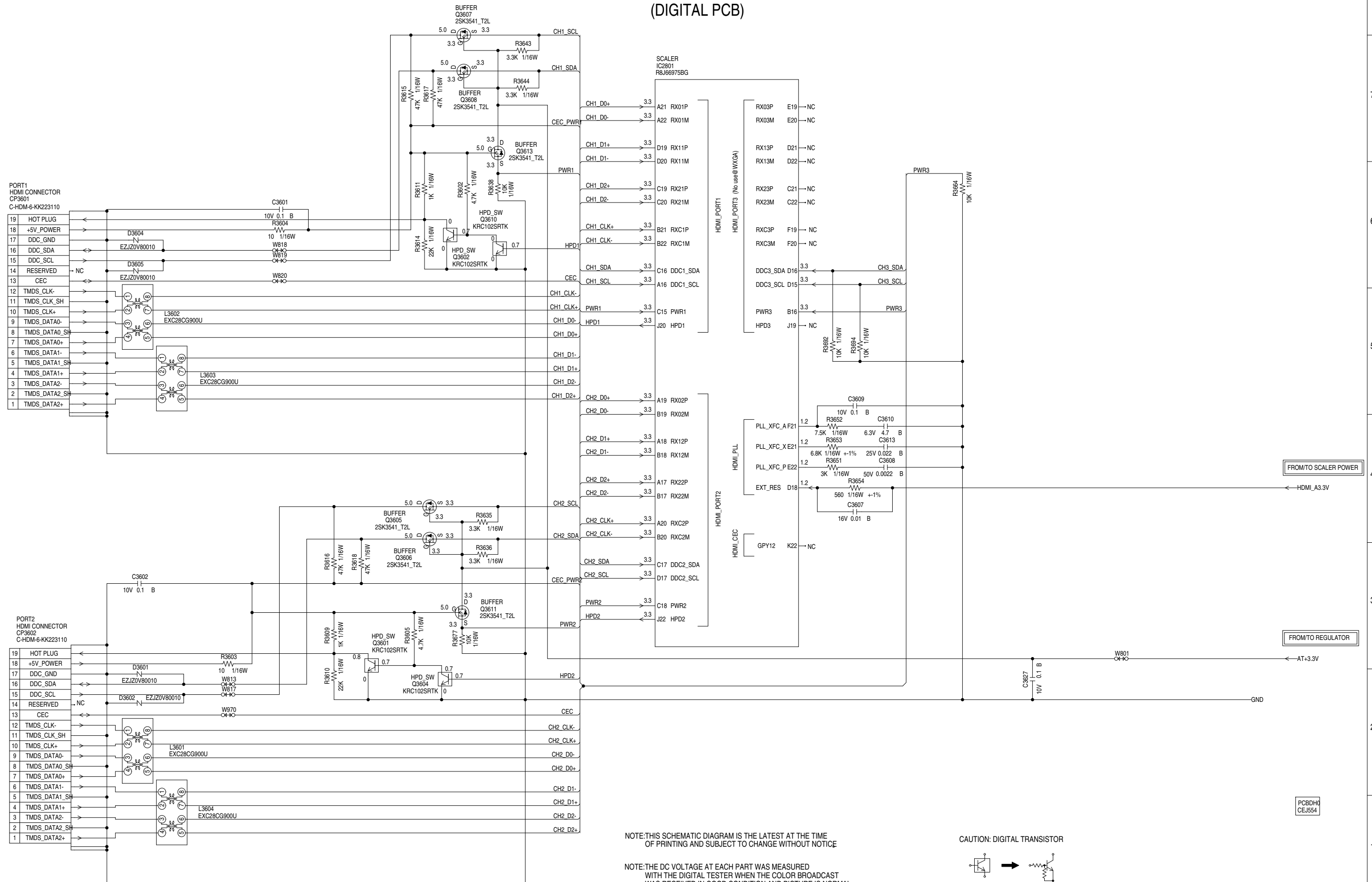
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.



## HDMI SCHEMATIC DIAGRAM

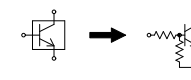
(DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

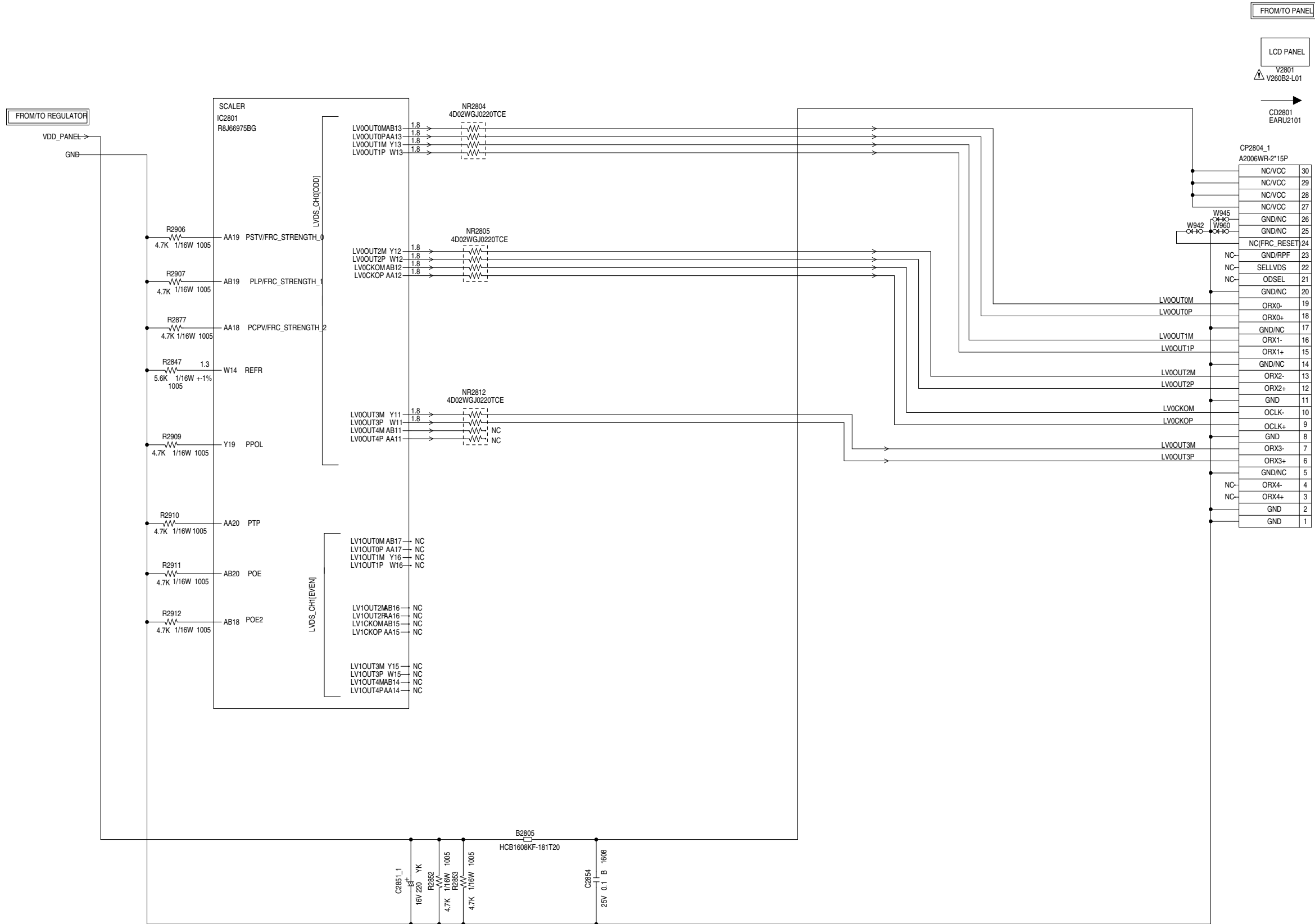
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR





LVDS SCHEMATIC DIAGRAM  
(DIGITAL PCB)



NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION LES PIECES REPARÉES PAR UN ETANT  
DANGEREUSES AN POINT DE VUE SECURITE  
N'UTILISER QUE CELLS DECRITES  
DANS LA NOMENCLATURE DES PIECES

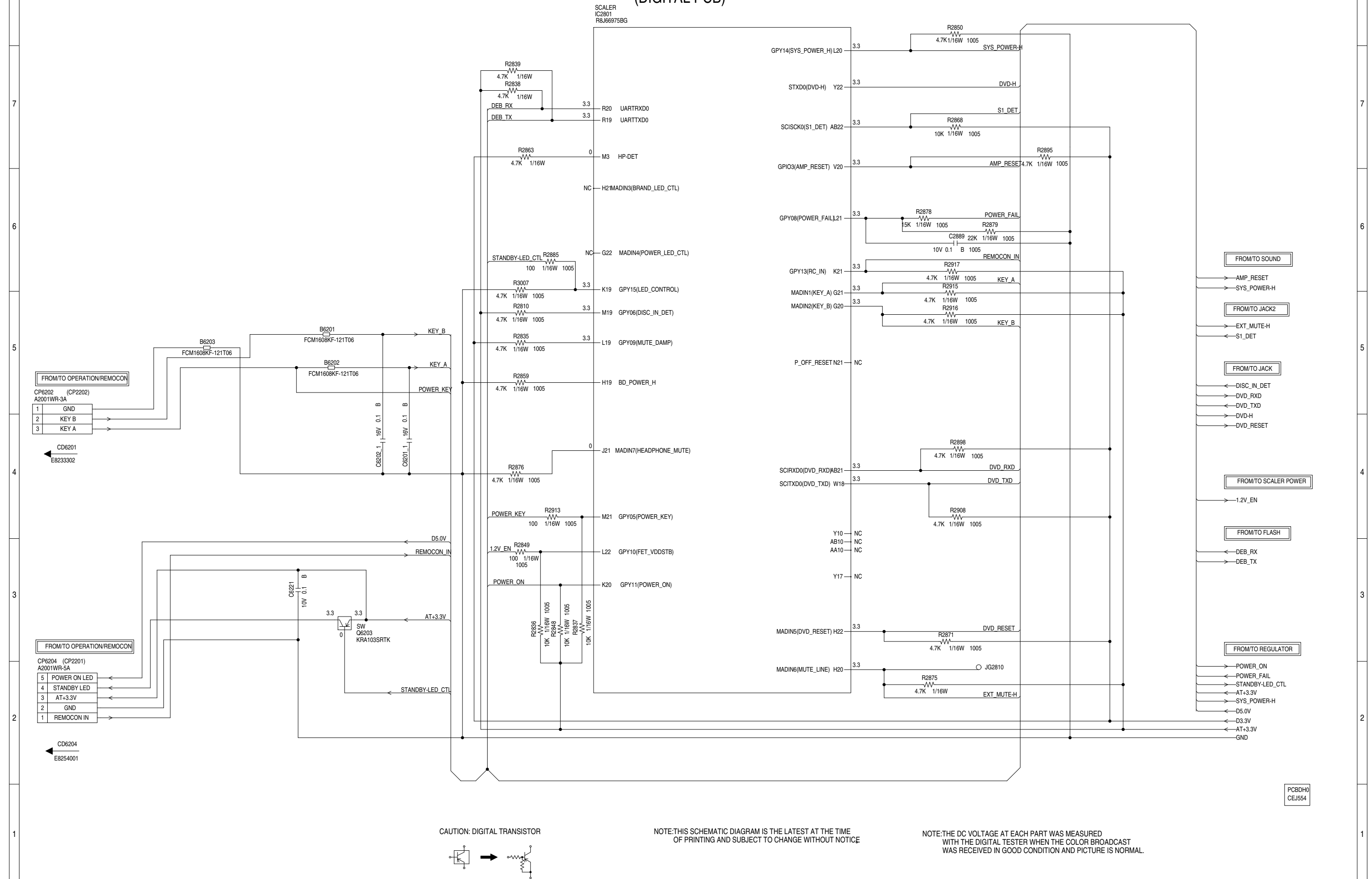
CAUTION SINCE THESE PARTS MARKED BY ARE  
CRITICAL FOR SAFETY,USE ONES  
DESCRIBED IN PARTS LIST ONLY .

PCBDH0  
CEJ554



# MICON SCHEMATIC DIAGRAM

## (DIGITAL PCB)





# SCALER POWER SCHEMATIC DIAGRAM

## (DIGITAL PCB)

SCALER IC IC2801 R8J66975BG

FROM/TO REGULATOR

D1.25V  
D3.3V  
A1.8V  
A3.3V  
GND

FROM/TO MICON

1.2V\_EN

FET VDD STB  
Q3001  
SSM9K104TU

NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

8  
7  
6  
5  
4  
3  
2  
1

8  
7  
6  
5  
4  
3  
2  
1



 TU5800  
DTVA50CVH1019M

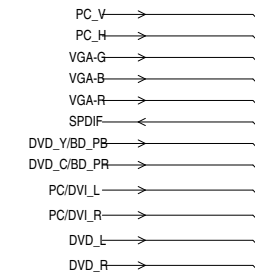


**CAUTION** SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

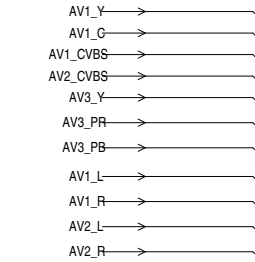


SCALER VIDEO/AUDIO SCHEMATIC DIAGRAM  
(DIGITAL PCB)

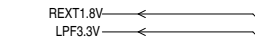
FROM/TO JACK



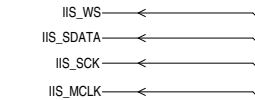
FROM/TO JACK2



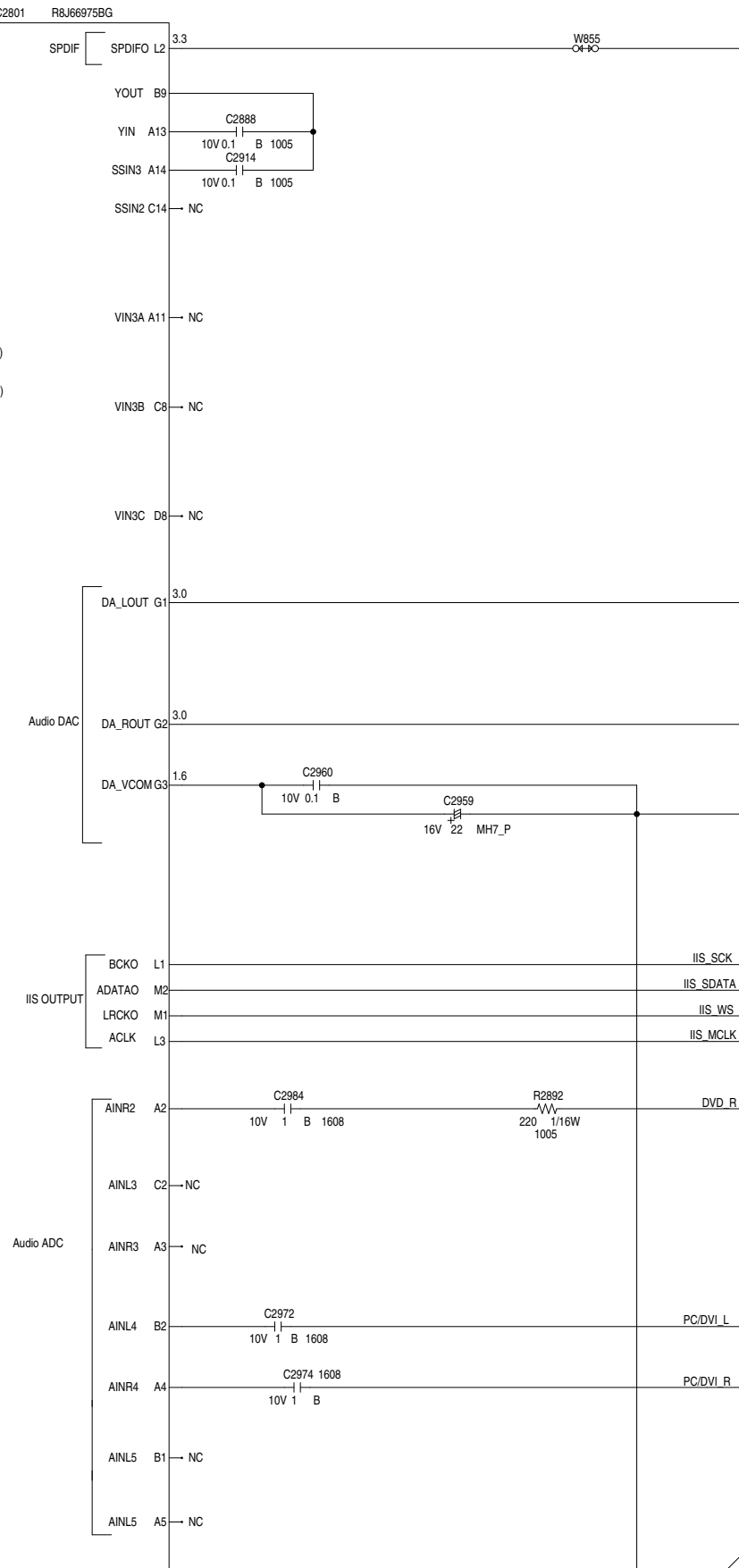
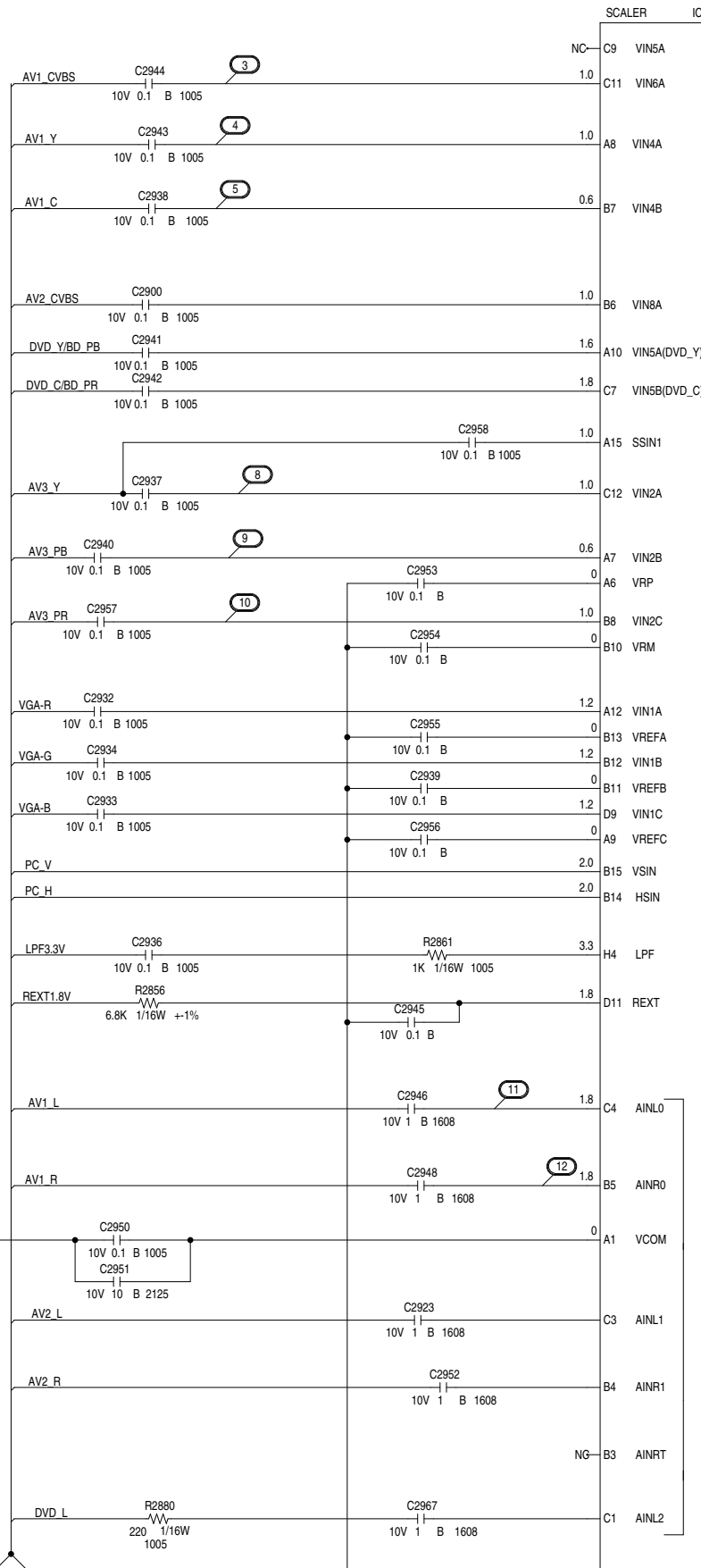
FROM/TO SCALER POWER



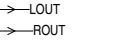
FROM/TO SOUND



FROM/TO REGULATOR



FROM/TO JACK2



PC8DH0  
CEJ554

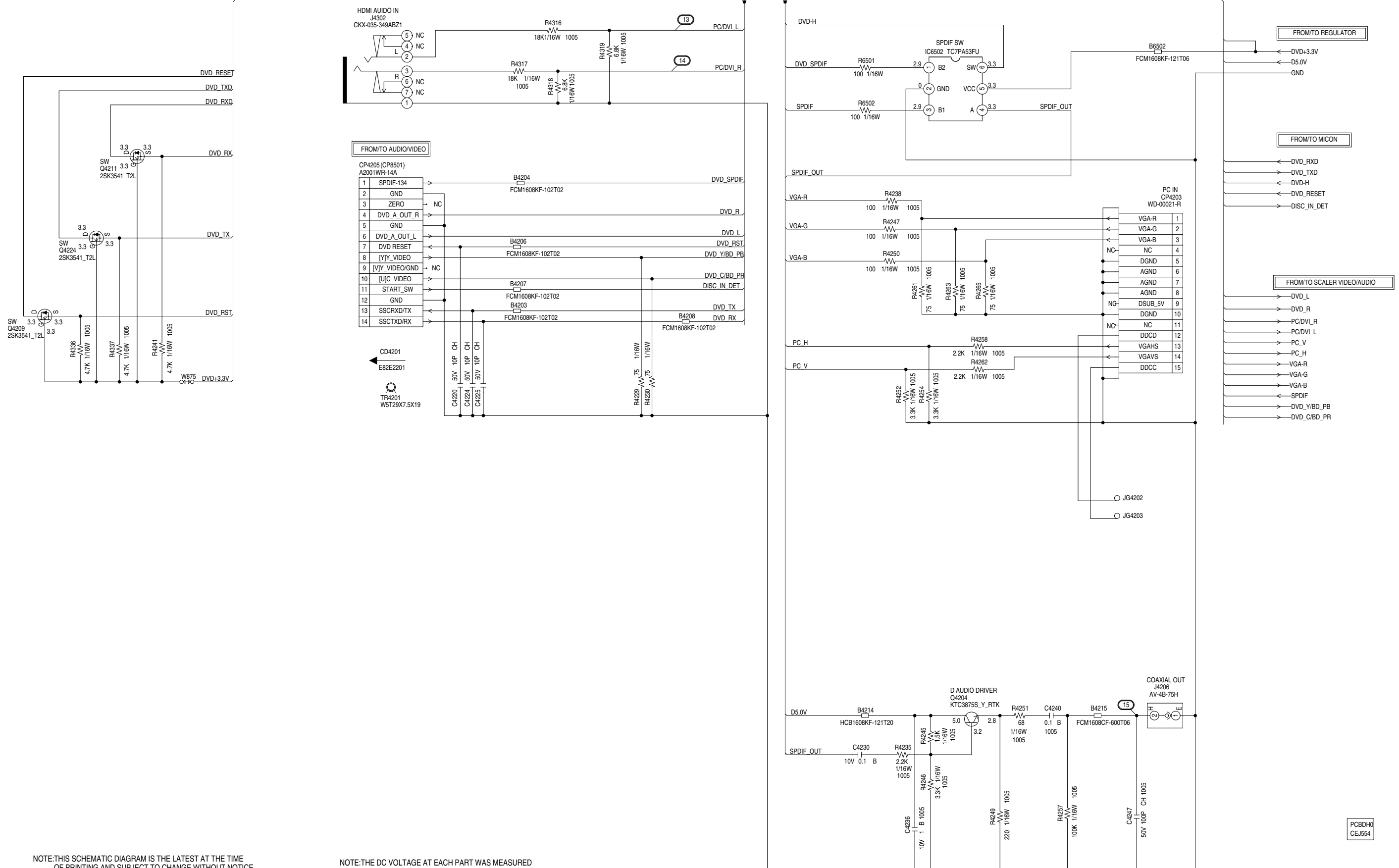
NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

← DIGITAL AUDIO SIGNAL(PB)



# JACK SCHEMATIC DIAGRAM (DIGITAL PCB)



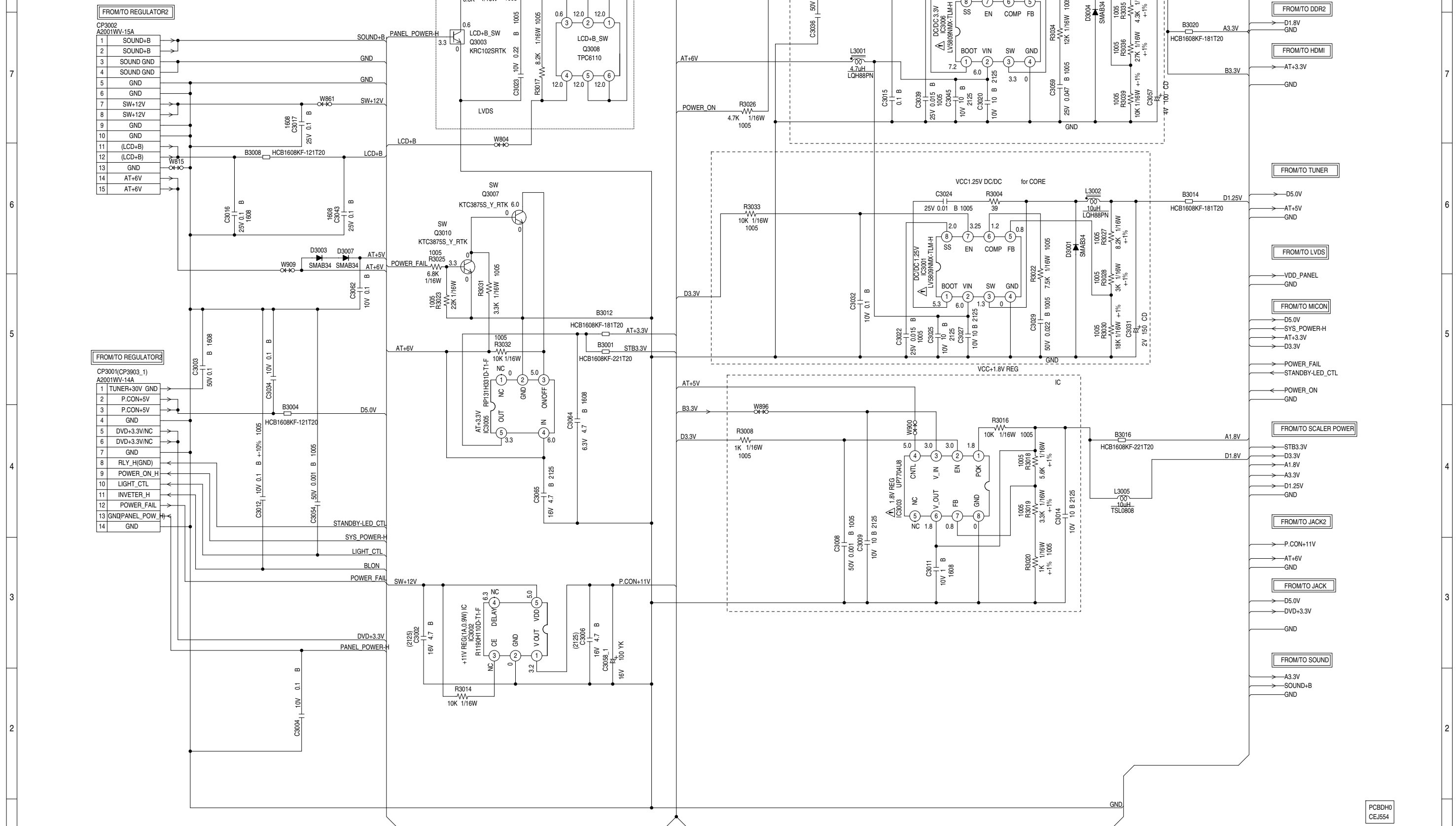
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.



# REGULATOR SCHEMATIC DIAGRAM

(DIGITAL PCB)



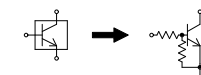
NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

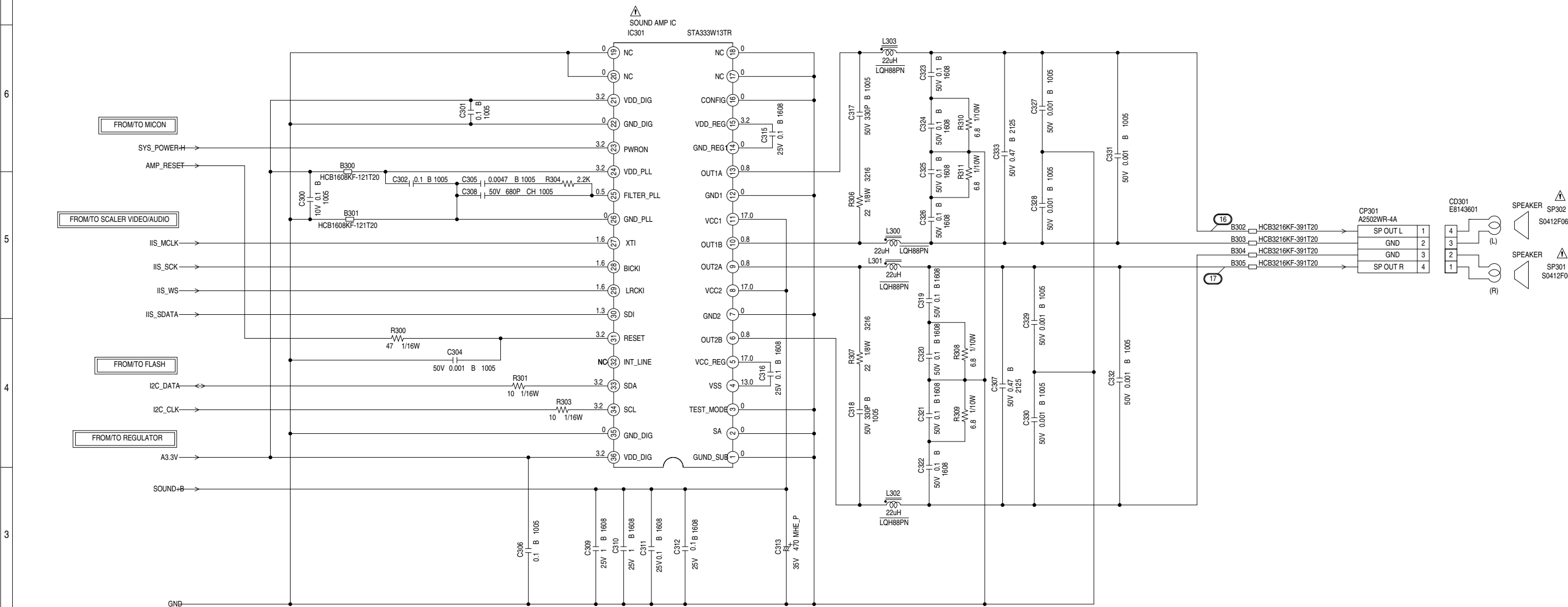
ATTENTION: LES PIECES REPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

CAUTION: DIGITAL TRANSISTOR





SOUND SCHEMATIC DIAGRAM  
(DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

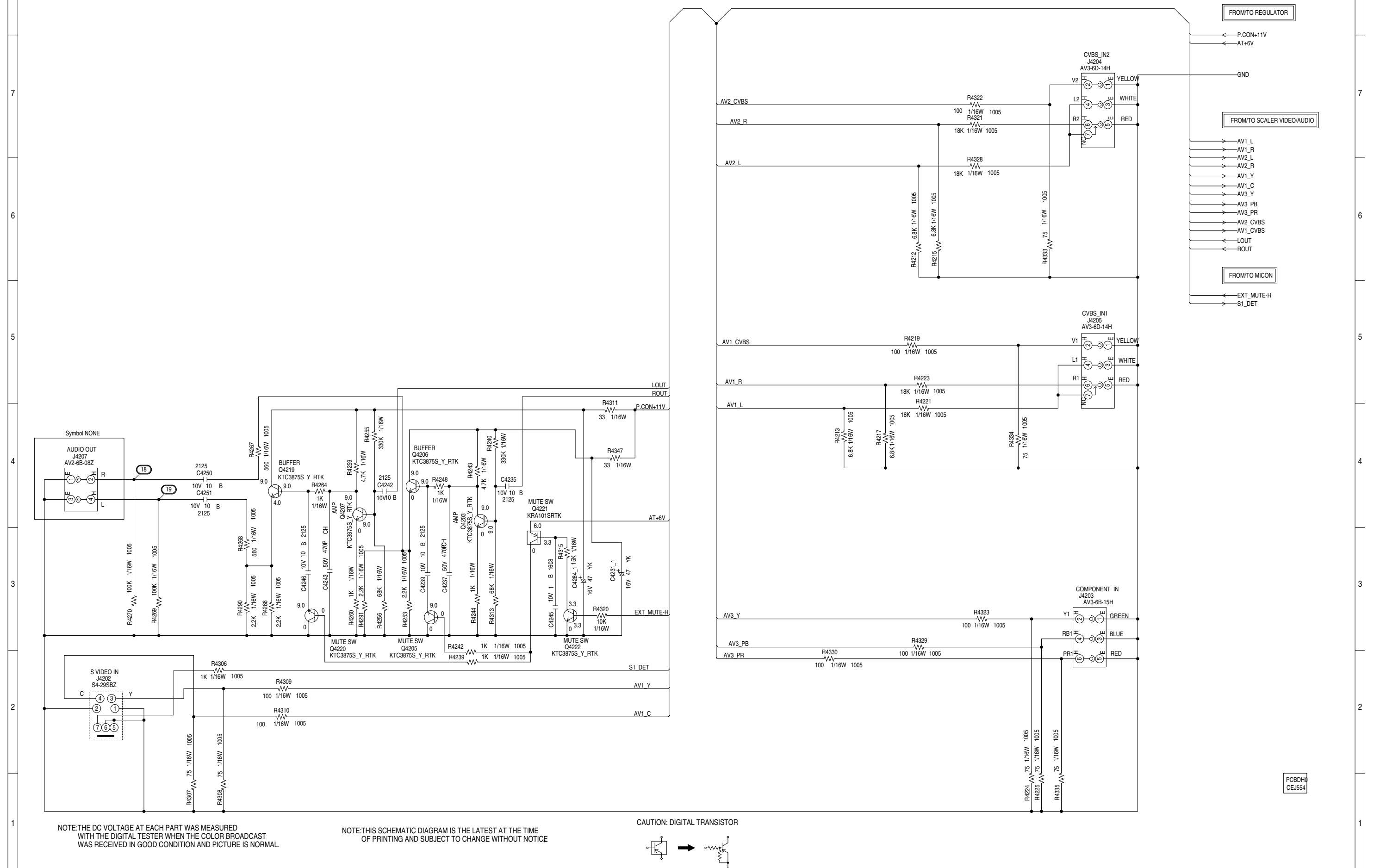
CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ, N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

PCBDH0  
CEJ554

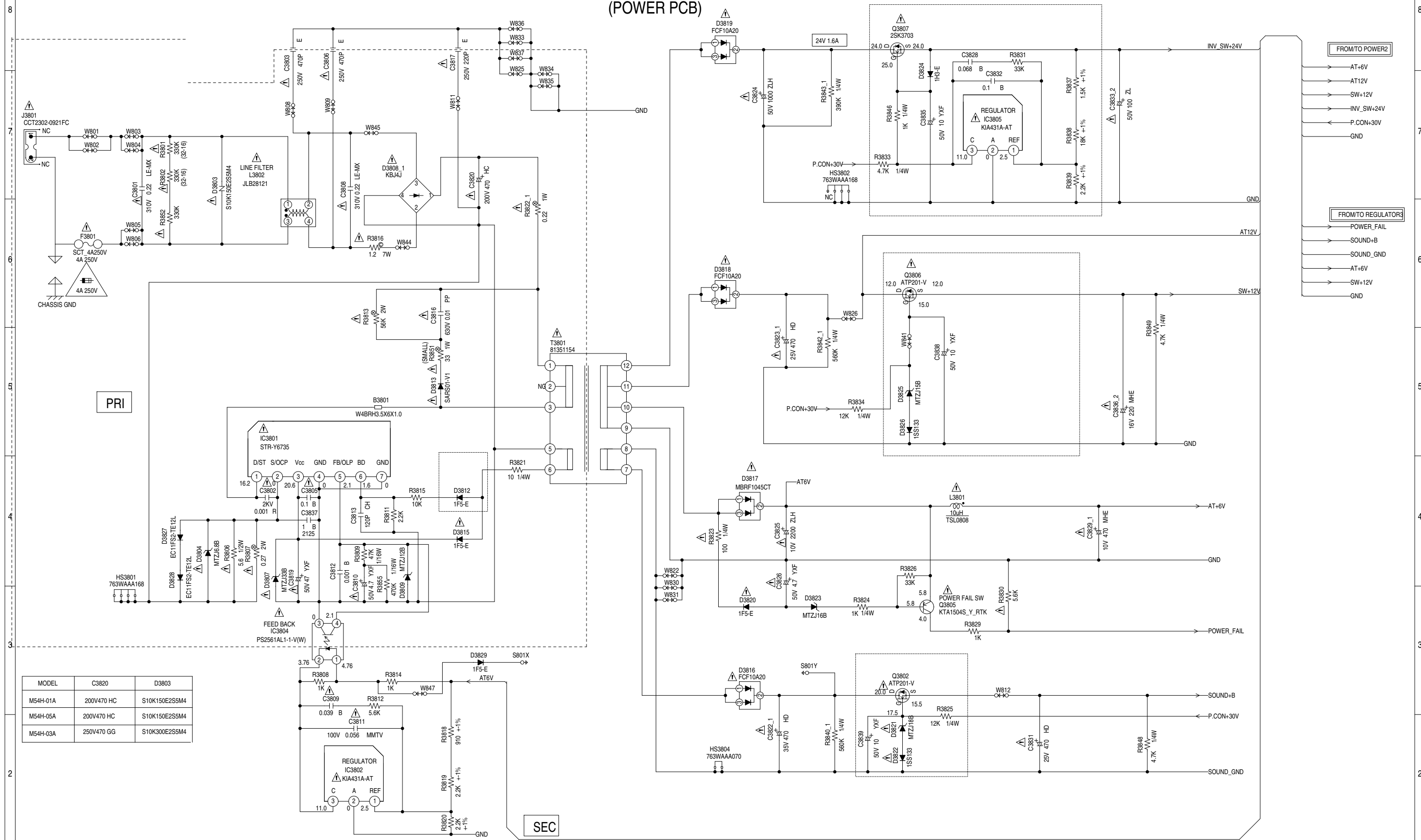


## JACK2 SCHEMATIC DIAGRAM





# POWER1 SCHEMATIC DIAGRAM (POWER PCB)



NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR.  
THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP  
IS NON POLAR ONE.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ARE  
CRITICAL FOR SAFETY, USE ONES  
DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN ETANT  
DANGEREUSES AU POINT DE VUE SECURITE  
N'UTILISER QUE CELLES DECRITES  
DANS LA NOMENCLATURE DES PIECES

FROM/TO POWER2

- AT+6V
- AT12V
- SW+12V
- INV\_SW+24V
- P.CON+30V
- GND

FROM/TO REGULATOR3

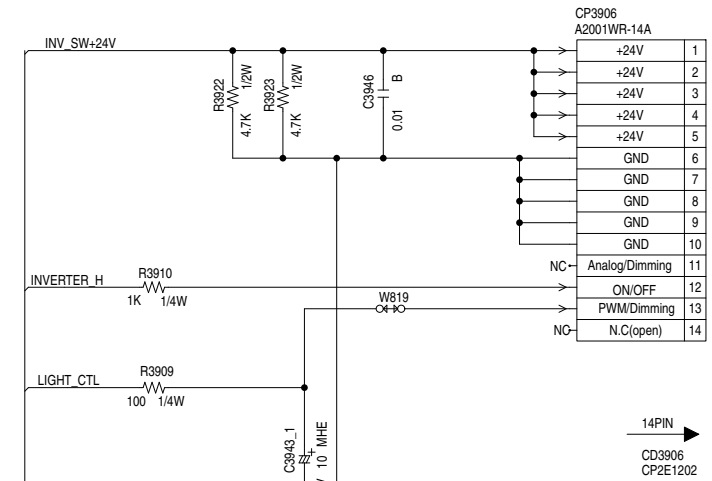
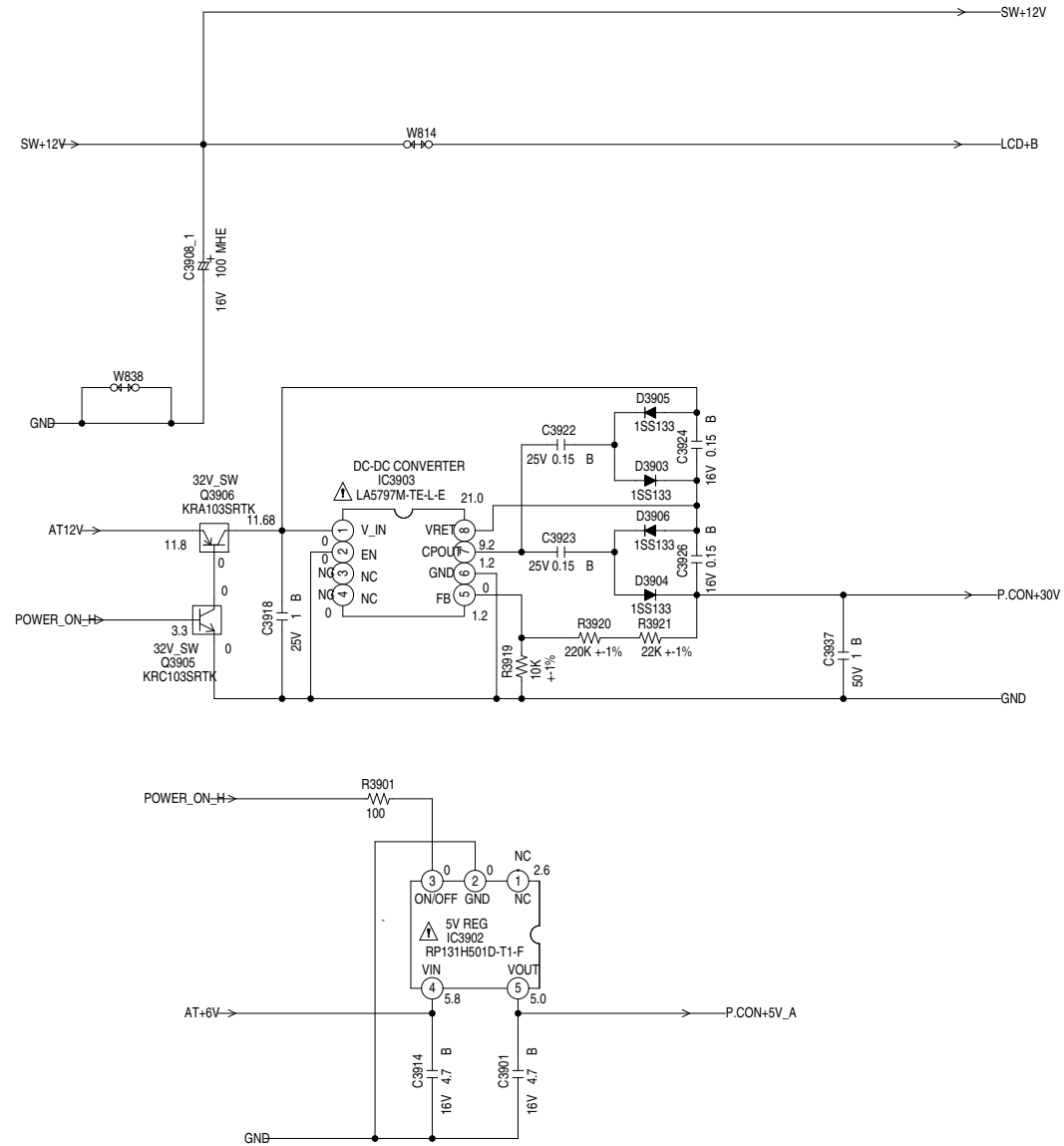
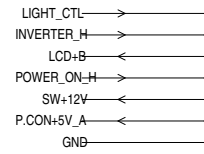
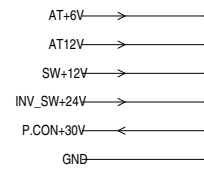
- POWER\_FAIL
- SOUND+B
- SOUND\_GND
- AT+6V
- SW+12V
- GND

PCB240  
CEJ508



## POWER2 SCHEMATIC DIAGRAM

(POWER PCB)



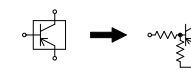
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

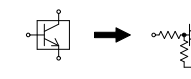
**CAUTION** SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

**ATTENTION** LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

CAUTION: DIGITAL TRANSISTOR



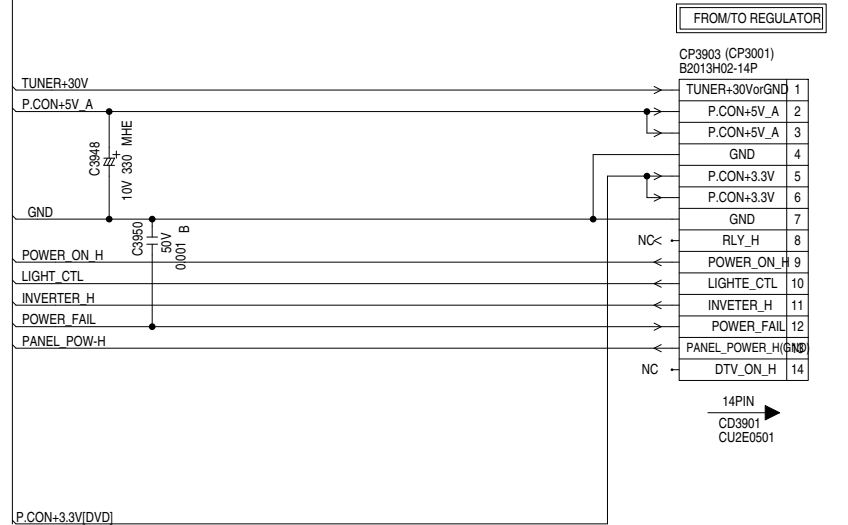
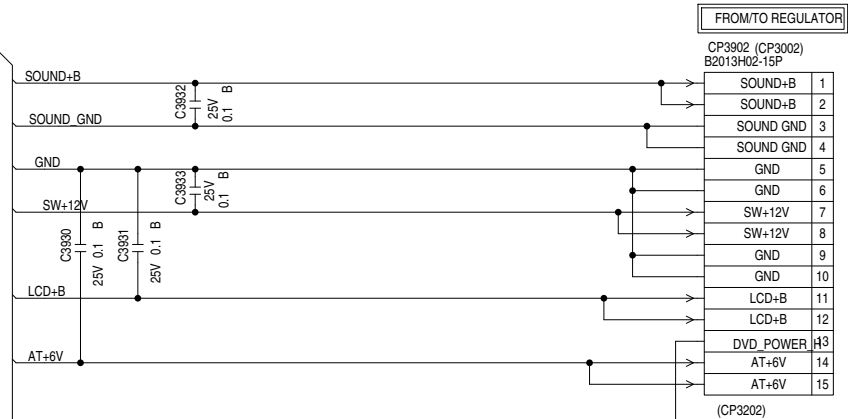
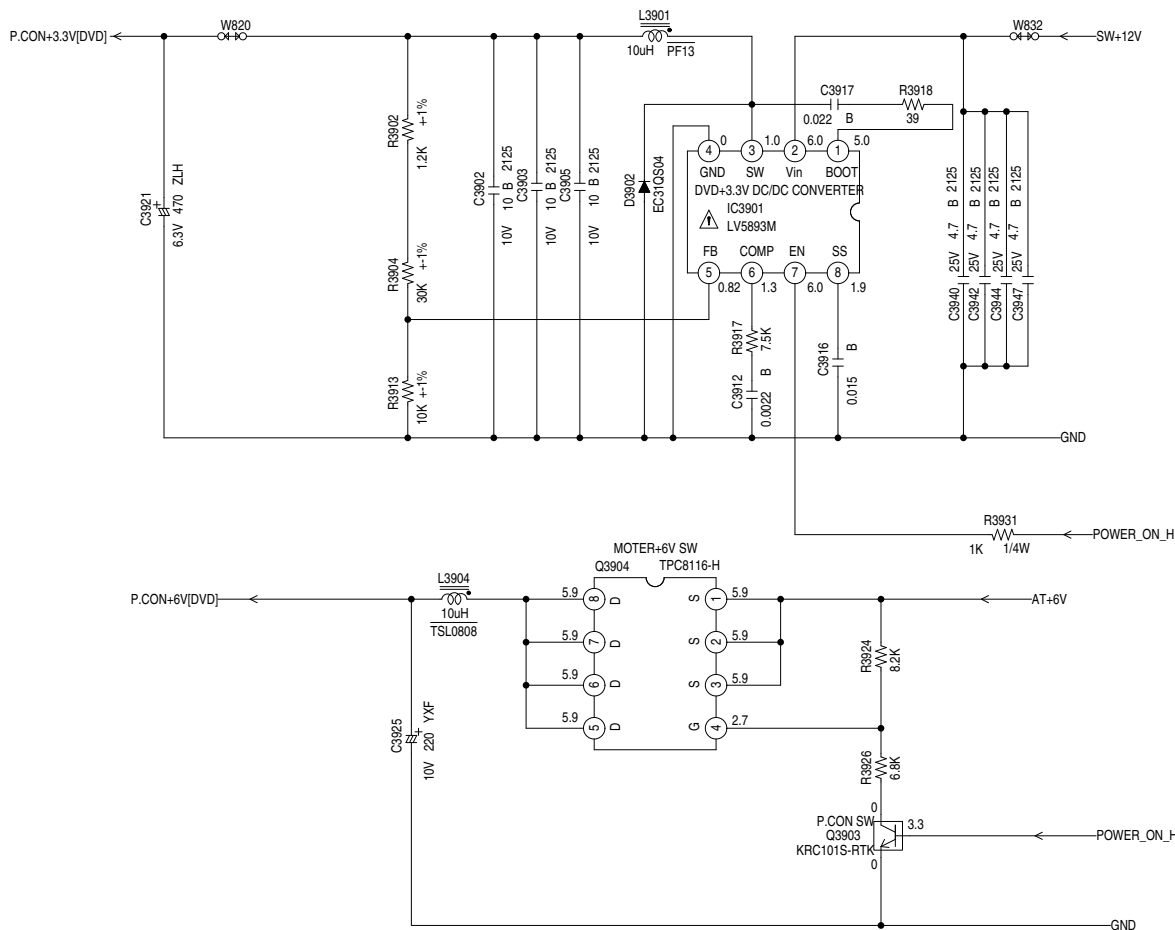
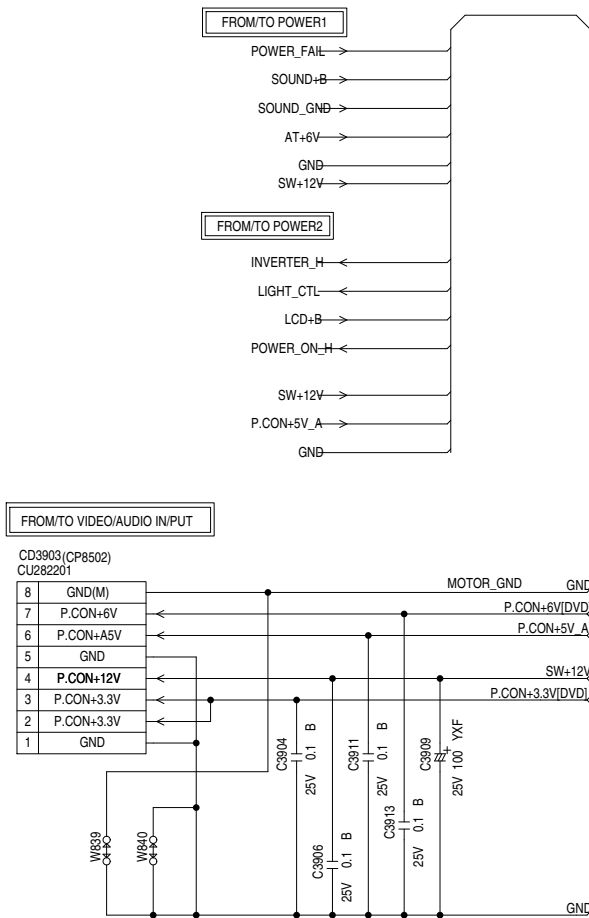
CAUTION: DIGITAL TRANSISTOR



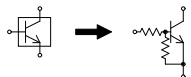
PCB240  
CEJ508



REGULATOR2 SCHEMATIC DIAGRAM  
(POWER PCB)



CAUTION: DIGITAL TRANSISTOR



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

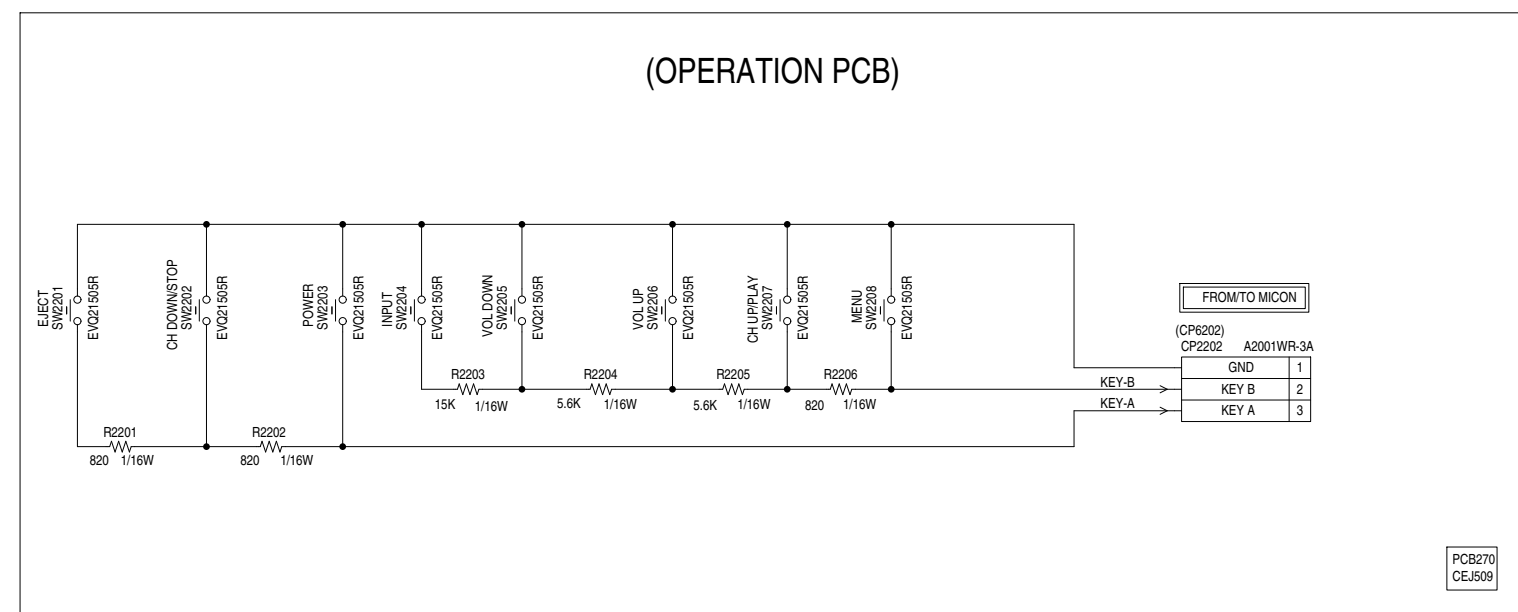
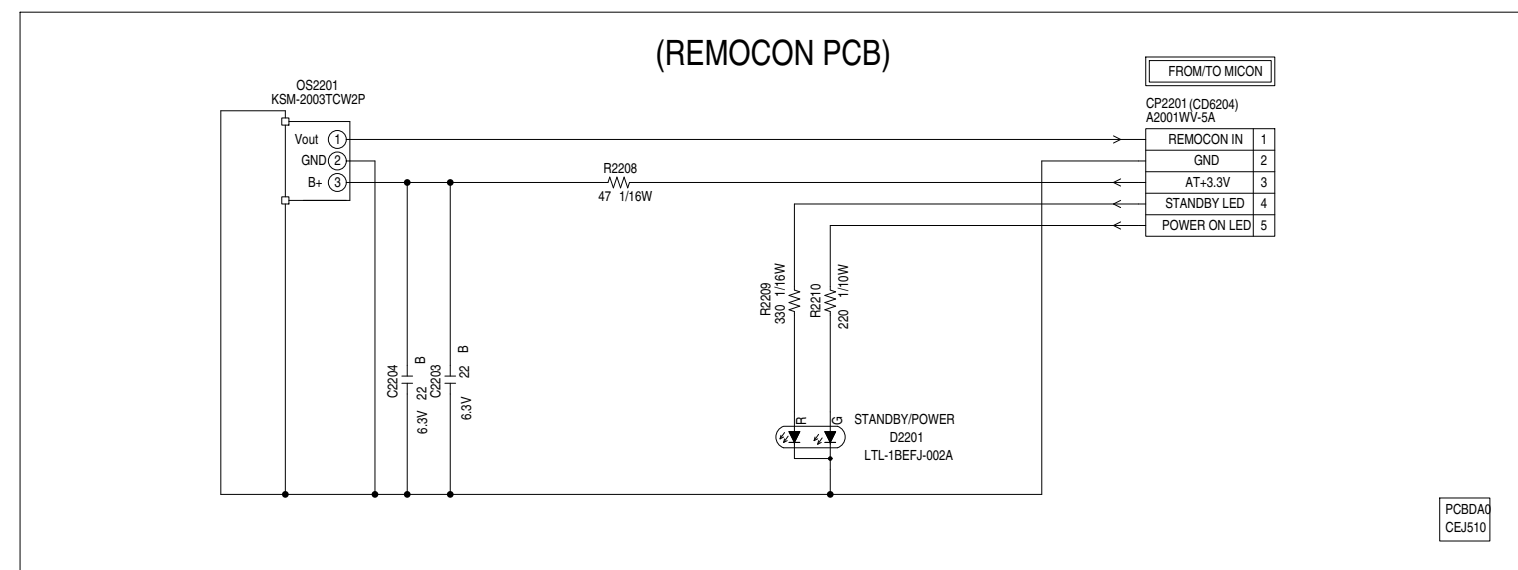
CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPAREES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

PCB240  
CEJ508



# OPERATION/REMOCON SCHEMATIC DIAGRAM (POWER PCB)



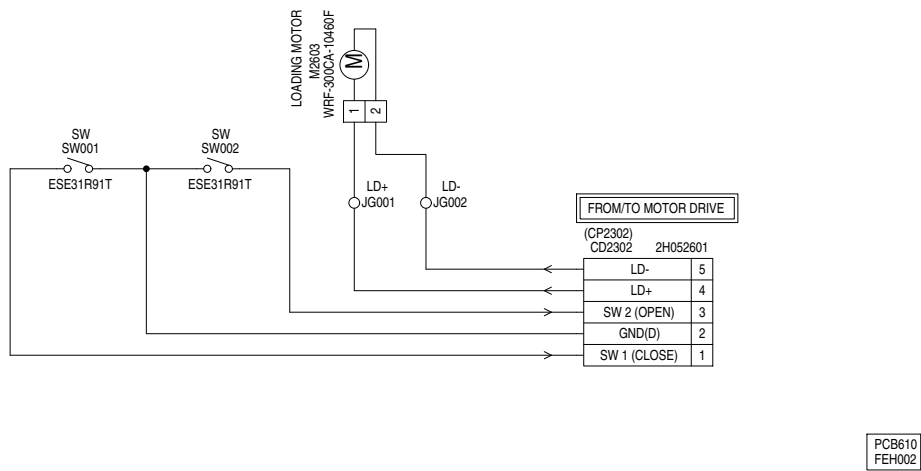
NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.



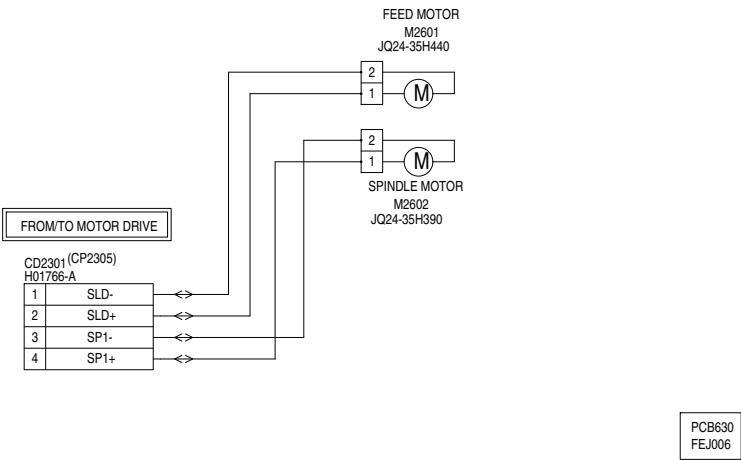
LOADING MOTOR SCHEMATIC DIAGRAM

(LOADING MOTOR PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

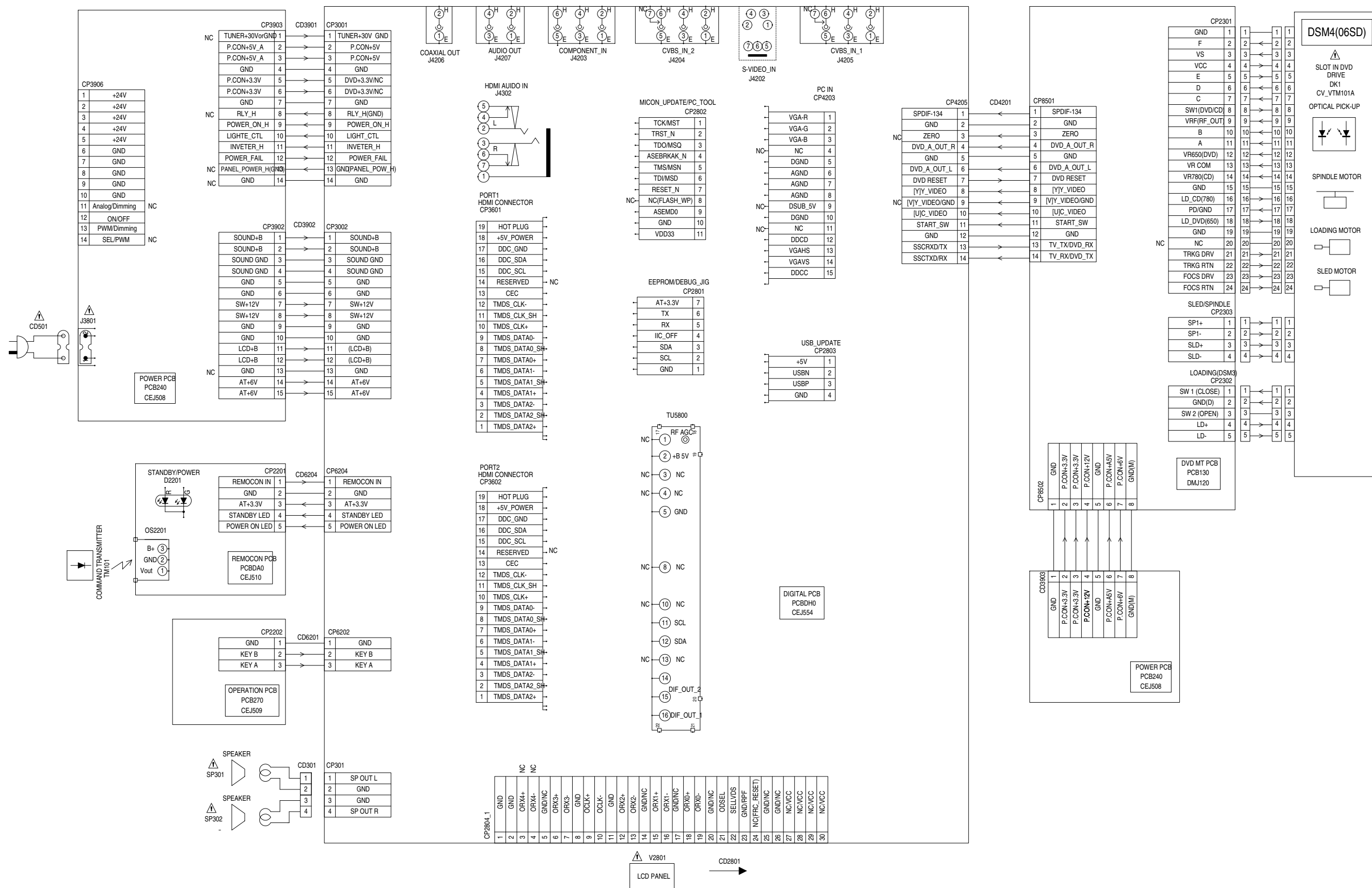
(PCB)





NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.



## INTERCONNECTION DIAGRAM



**CAUTION** SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

**ATTENTION** LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

NOTE: THIS INTERCONNECTION DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

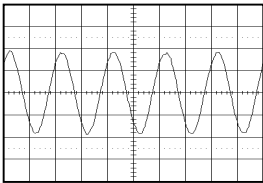


WAVEFORMS

FLASH

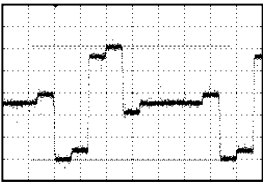
20ns  
200mV

1



10us  
100mV

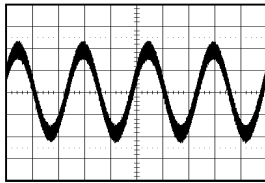
10



SOUND

1ms  
200mV

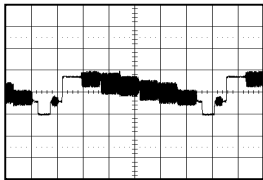
16



SCALER VIDEO/AUDIO

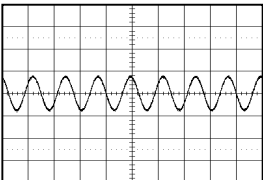
10us  
0.5V

3



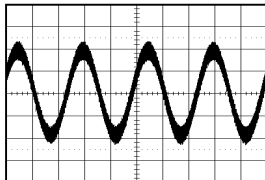
2ms  
100mV

11



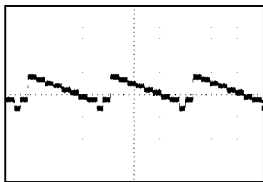
1ms  
200mV

17



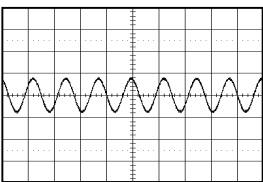
20us  
500mV

4



2ms  
100mV

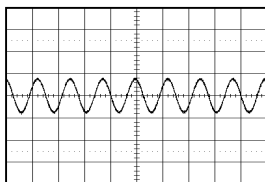
12



JACK2

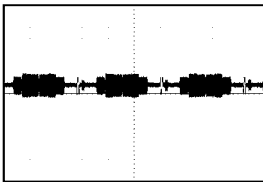
2ms  
500mV

18



20us  
500mV

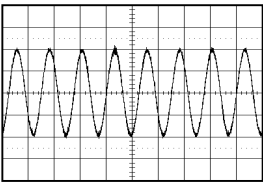
5



JACK

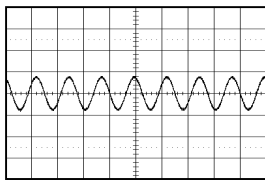
2ms  
100mV

13



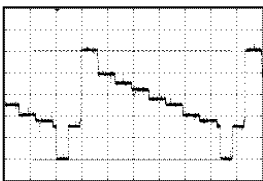
2ms  
500mV

19



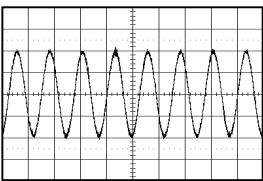
10us  
200mV

8



2ms  
100mV

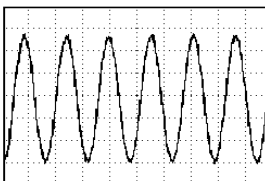
14



MPEG/MICOM/DSP

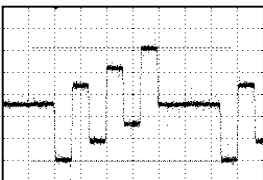
5ns  
200mV

50



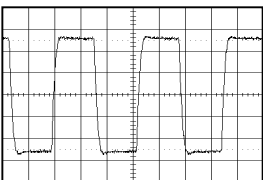
10us  
100mV

9



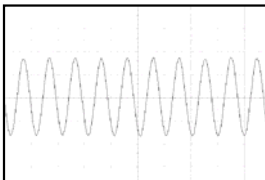
0.2us  
200mV

15



20ns  
200mV

51



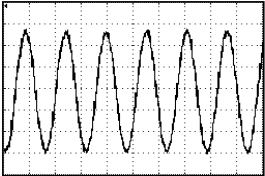
NOTE : The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.



# WAVEFORMS

## MPEG/MICOM/DSP

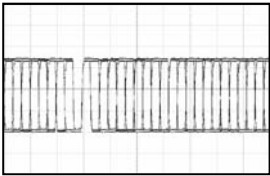
5ns  
200mV



54

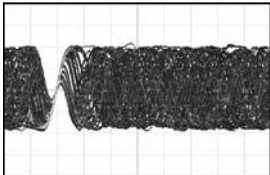
## VIDEO/AUDIO IN/OUT

50ms  
1V



60

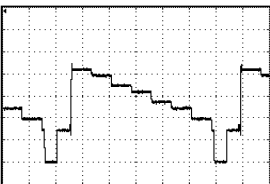
200ns  
200mV



55

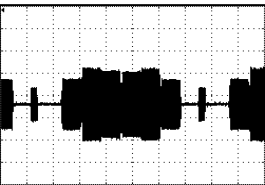
## VIDEO/AUDIO IN/OUT

10us  
200mV



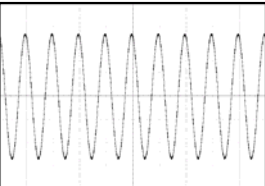
56

10us  
200mV



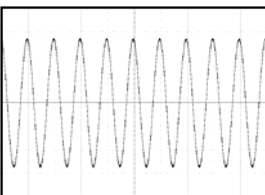
57

1ms  
1V



58

1ms  
1V

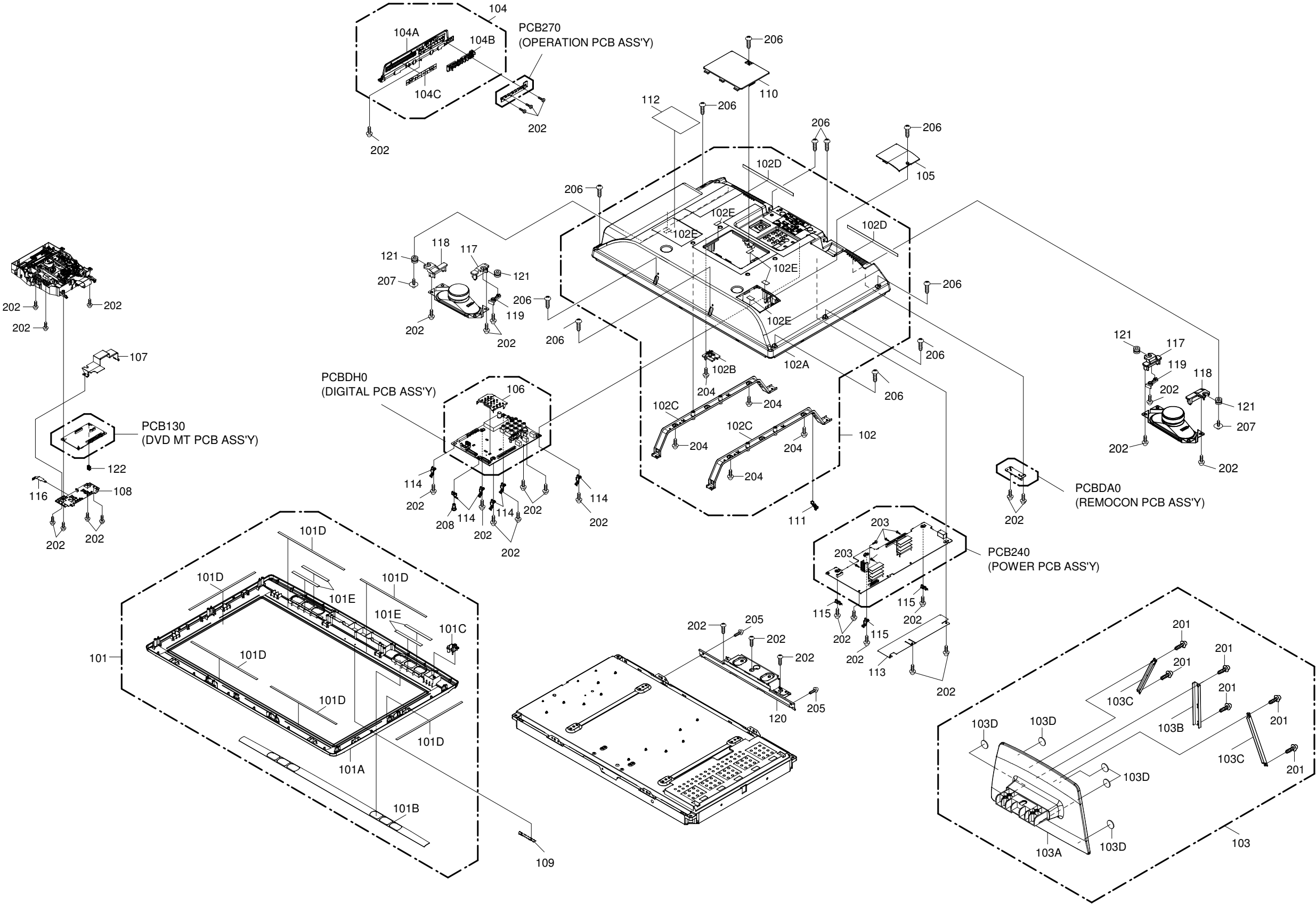


59

**NOTE :** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

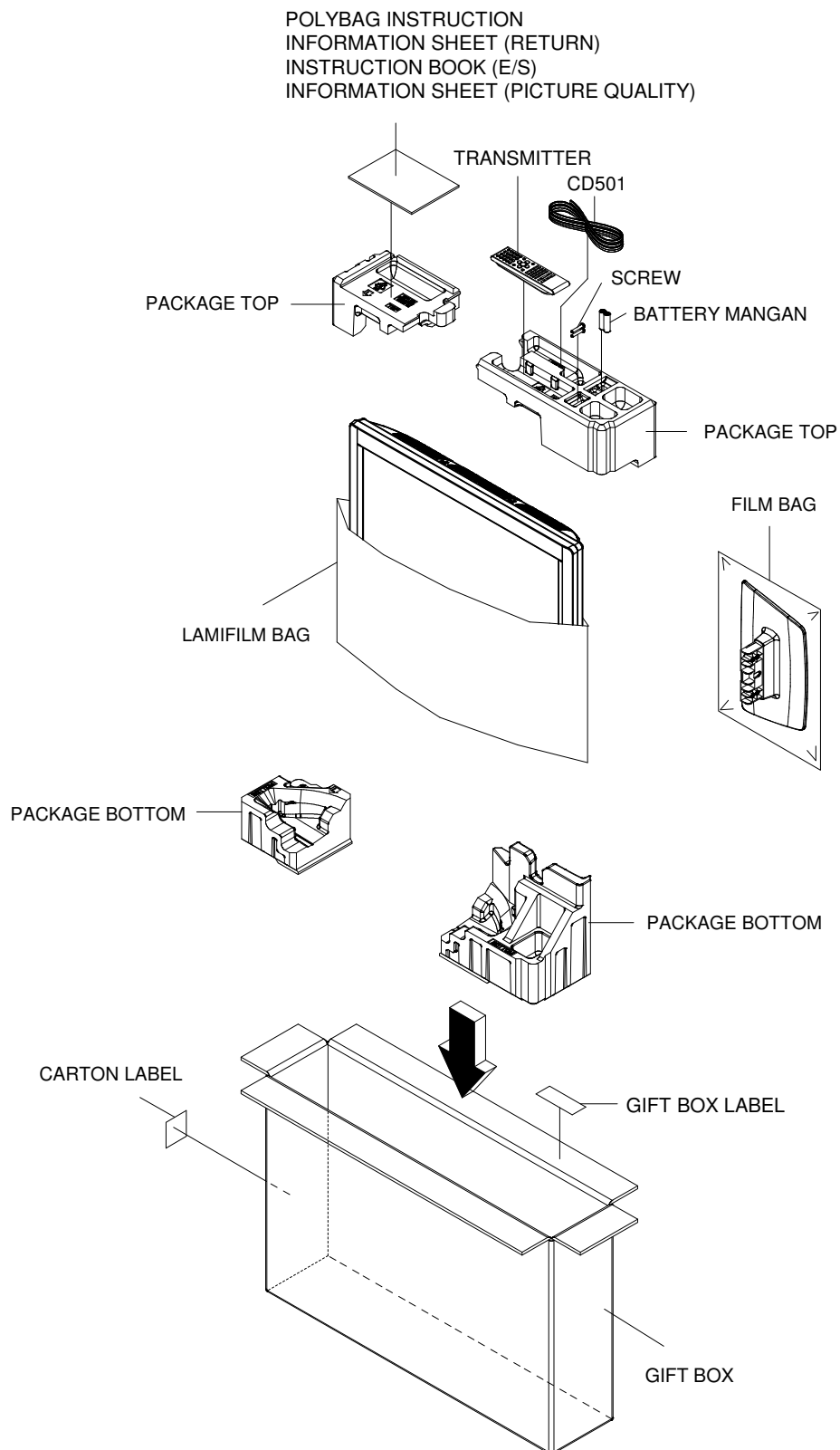


MECHANICAL EXPLODED VIEW



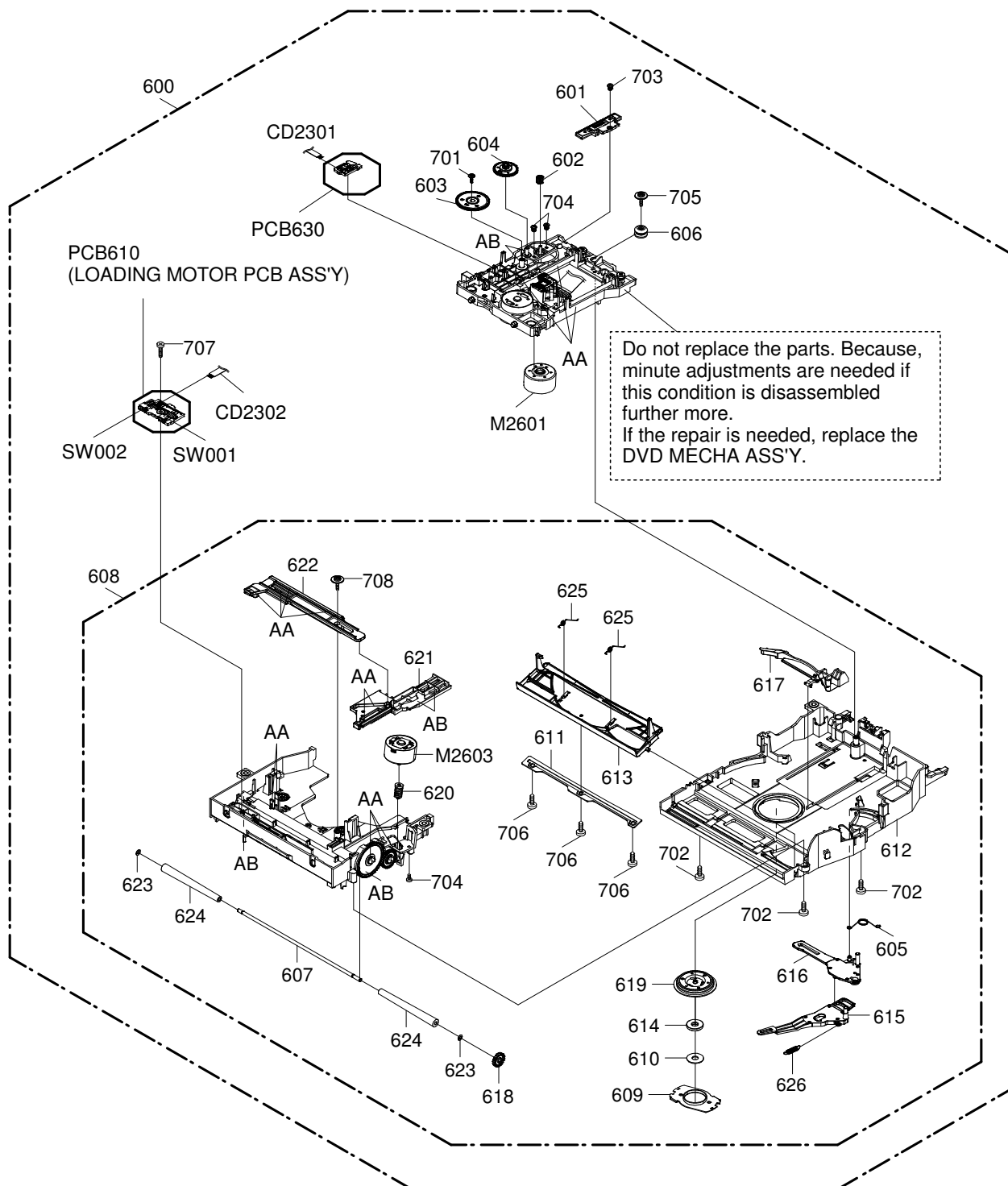


# MECHANICAL EXPLODED VIEW (PACKING DIAGRAM)





## DVD DECK EXPLODED VIEW



CLASS	PART NO.	PART NAME	MARK
GREASE	Y315141000	G-313Y	AA
	Y31D041000	CFD-5007Z	AB

**NOTE:** Applying positions AA and AB for the grease are displayed for this section. Check if the correct grease is applied for each position.



# MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
101	7A708A398A	FRONT CABI ASS'Y	
101A	708WPAA090	CABINET FRONT	
101B	702WNAA032	SHEET SPEAKER	
101C	713WPAA295	GLASS LED	
101D	800WQ00181	FELT SHEET	
101E	800WQ0A218	FELT SHEET	
102	7A702B086A	BACK CABI ASS'Y	
102A	702WPAB595	CABINET BACK	or
	702WPAB632	CABINET BACK	
102B	761WPAA252	HOLDER PCB	
102C	761WSA0654	ANGLE MAIN	
102D	800WQ0A243	FELT SHEET	
102E	800WQ00195	FELT SHEET	
103	7A704A243A	STAND ASS'Y	
103A	704WPBA159	STAND	or
	704WPBA160	STAND	
103B	761WSA0691	ANGLE STAND-1	
103C	761WSA0692	ANGLE STAND-2	
103D	800WFA0135	CUSHION LEG	
104	7A735A044A	PLATE BUTTON ASS'Y	
104A	711WPDA957	PLATE BUTTON-DVD	
104B	735WPA0983	BUTTON FRAME	or
	735WPAB215	BUTTON FRAME	
104C	800WQ00175	FELT SHEET (DVD)	
105	702WPAB556	COVER INVERTER	
106	752WSA0737	SHIELD DIGITAL	
107	761WSA0812	SHIELD LVDS BOTTOM	
108	761WSA0813	SHIELD LVDS	
109	723529A004	BADGE BRAND	
110	702WPA1499	COVER LVDS	
111	709WPA0054	HOLDER WIRE	
112	722529A014	SHEET RATING	
113	724WNAA040	SHEET PC	
114	744WUA0031	SPRING EARTH	
115	744WUA0039	SPRING EARTH	
116	753WUA0103	SPRING EARTH H/AMP	
117	761WPA0595	HOLDER SPEAKER-1	
118	761WPA0596	HOLDER SPEAKER-2	
119	761WPA0597	HOLDER DAMPER	
120	761WSAA129	ANGLE HINGE	
121	800WR00084	DAMPER SPEAKER	
122	709WPA0051	HOLDER WIRE	
201	811063080U	SCREW TAP TITE(P) BRAZIER	3x8
202	8109230A0U	SCREW TAP TITE(B) BIND	3x10
203	8109130A0U	SCREW TAP TITE(B) WH7	3x10
204	8110630A0U	SCREW TAP TITE(P)BRAZIER	3x10
205	810A14080U	SCREW WASHER(A)	M4x8
206	8109230A4U	SCREW TAP TITE(B) BIND	3x14
207	8171130A0U	SCREW TAP TITE(B) WASHER12	3x10
208	8900P3545B	RIVET	
---	723000E510	GIFT BOX LABEL	
---	723000E515	CARTON LABEL	
---	791WHAA240	LAMIFILM BAG	
---	791WHAA339	FILM BAG	
---	792WHAA378	PACKAGE TOP	
---	792WHAA379	PACKAGE BOTTOM	
---	793WCDE320	GIFT BOX	
---	8905000014	SCREW	
---	J37I0529A	INFORMATION SHEET(RETURN)	
---	J54H0559A	INFORMATION SHEET(PICTURE QUALITY)	
---	JA5K0000	POLYBAG INSTRUCTION	
---	J54H0521B	INSTRUCTION BOOK(E/S)	



# DVD DECK REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
△ 600	A54K01W650	DVD MECHA ASS'Y	A54K01W650
601	92AAA0026A	FEED RACK ASS'Y	
602	92P100203A	GEAR MOTOR	
603	92P100201A	GEAR FEED	
604	92P100202A	GEAR MIDDLE	
605	92P300035A	SPRING LEVER GUIDE	
606	92P200018A	INSULATOR, R	
607	92P500016A	SHAFT ROLLER	
608	A54K01W700	LOADER SUB ASS'Y	
609	92P000036A	COVER CLAMPER	
610	92P000037A	PLATE CLAMPER	
611	92P000039A	PLATE RETAINER	
612	92P100222A	FRAME MAIN	
613	92P100159A	RETAINER SHUTTER	
614	92P400011A	MAGNET CLAMPER	
615	92P100161A	LEVER DISC	
616	92P100162A	LEVER GUIDE	
617	92P100218A	GUIDE DISC	
618	92P100164A	GEAR ROLLER	
619	92P100165A	CLAMPER	
620	92P100172A	GEAR WORM	
621	92P100175A	RACK LEVER	
622	92P100176A	PLATE TRVS UD	
623	92P100180A	LUMIRROR WASHER	
624	92P200020A	ROLLER CONE	
625	92P300033A	SPRING SHUTTER	
626	92P300034A	SPRING LEVER DISC	
701	92P700020A	SCREW TAP TITE(P) PAN	WH5.4 1.7x8
702	92P700018A	SCREW TAP TITE(P) BIND	2.6x8
703	813381750U	SCREW,T-TITE(B)CAMERA PAN	M1.7x5.0 P3
704	814011723U	SCREW,PAN	M1.7x2.3 P3
705	92P700021A	SCREW TAP TITE(P) PAN WH8	2x8
706	810922030U	SCREW TAP TITE(B) BIND	2x3
707	810922060U	SCREW,TAP TITE(B) BIND	2x6
708	92P700017A	SCREW TAP TITE(P)BIND WH7	M2.6x8
CD2301	12C5042201	CORD JUMPER	H01766-A
CD2302	12C5052701	CORD JUMPER	H01767-A
M2601	1515U98007	MOTOR	JQ24-35H440
M2603	1596L98004	MOTOR,LOADING	WRF-300CA-10460F
PCB610	A52C01T610	LOADING MOTOR PCB ASSY	FEH002B
PCB630	13FEJ006AW	PCB	FEJ006A
SW001	0500101042	PUSH SWITCH	ESE31R11T
SW002	0500101042	PUSH SWITCH	ESE31R11T



# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R300	R808R9470J	RC 47 OHM 1/16W	R2852	R808R9472J	RC 4.7K OHM 1/16W
R301	R808R9100J	RC 10 OHM 1/16W	R2853	R808R9472J	RC 4.7K OHM 1/16W
R303	R808R9100J	RC 10 OHM 1/16W	R2856	R808R9682F	RC 6.8K OHM 1/16W
R304	R808R9222J	RC 2.2K OHM 1/16W	R2859	R808R9472J	RC 4.7K OHM 1/16W
R306	R802R8220J	RC 22 OHM 1/8W	R2861	R808R9102J	RC 1K OHM 1/16W
R307	R802R8220J	RC 22 OHM 1/8W	R2863	R808R9472J	RC 4.7K OHM 1/16W
R308	R801R76R8J	RC 6.8 OHM 1/10W	R2866	R808R9472J	RC 4.7K OHM 1/16W
R309	R801R76R8J	RC 6.8 OHM 1/10W	R2867	R808R9472J	RC 4.7K OHM 1/16W
R310	R801R76R8J	RC 6.8 OHM 1/10W	R2868	R808R9103J	RC 10K OHM 1/16W
R311	R801R76R8J	RC 6.8 OHM 1/10W	R2871	R808R9472J	RC 4.7K OHM 1/16W
R2201	R803R9821J	RC 820 OHM 1/16W	R2875	R808R9472J	RC 4.7K OHM 1/16W
R2202	R803R9821J	RC 820 OHM 1/16W	R2876	R808R9472J	RC 4.7K OHM 1/16W
R2203	R803R9153J	RC 15K OHM 1/16W	R2877	R808R9472J	RC 4.7K OHM 1/16W
R2204	R803R9562J	RC 5.6K OHM 1/16W	R2878	R808R9153J	RC 15K OHM 1/16W
R2205	R803R9562J	RC 5.6K OHM 1/16W	R2879	R808R9223J	RC 22K OHM 1/16W
R2206	R803R9821J	RC 820 OHM 1/16W	R2880	R808R9221J	RC 220 OHM 1/16W
R2208	R803R9470J	RC 47 OHM 1/16W	R2882	R808R9472J	RC 4.7K OHM 1/16W
R2209	R803R9331J	RC 330 OHM 1/16W	R2883	R808R9472J	RC 4.7K OHM 1/16W
R2210	R801R7221J	RC 220 OHM 1/10W	R2885	R808R9101J	RC 100 OHM 1/16W
R2301	R808R94R7J	RC 4.7 OHM 1/16W	R2886	R808R9102J	RC 1K OHM 1/16W
R2302	R808R94R7J	RC 4.7 OHM 1/16W	R2891	R808R9103J	RC 10K OHM 1/16W
R2306	R808R9332J	RC 3.3K OHM 1/16W	R2892	R808R9221J	RC 220 OHM 1/16W
R2307	R808R9332J	RC 3.3K OHM 1/16W	R2894	R808R9220J	RC 22 OHM 1/16W
R2308	R808R9332J	RC 3.3K OHM 1/16W	R2895	R808R9472J	RC 4.7K OHM 1/16W
R2309	R808R9332J	RC 3.3K OHM 1/16W	R2896	R808R9220J	RC 22 OHM 1/16W
R2310	R808R9103J	RC 10K OHM 1/16W	R2898	R808R9472J	RC 4.7K OHM 1/16W
R2311	R808R9183F	RC 18K OHM 1/16W	R2899	R808R9123F	RC 12K OHM 1/16W
R2312	R808R9822F	RC 8.2K OHM 1/16W	R2906	R808R9472J	RC 4.7K OHM 1/16W
R2313	R808R9103F	RC 10K OHM 1/16W	R2907	R808R9472J	RC 4.7K OHM 1/16W
R2316	R808R9332J	RC 3.3K OHM 1/16W	R2908	R808R9472J	RC 4.7K OHM 1/16W
R2317	R808R9822F	RC 8.2K OHM 1/16W	R2909	R808R9472J	RC 4.7K OHM 1/16W
R2319	R808R9103J	RC 10K OHM 1/16W	R2910	R808R9472J	RC 4.7K OHM 1/16W
R2325	R808R9471F	RC 470 OHM 1/16W	R2911	R808R9472J	RC 4.7K OHM 1/16W
R2326	R861R4010J	RC 1 OHM 1/4W	R2912	R808R9472J	RC 4.7K OHM 1/16W
R2328	R808R9103J	RC 10K OHM 1/16W	R2913	R808R9101J	RC 100 OHM 1/16W
R2341	R808R9103J	RC 10K OHM 1/16W	R2915	R808R9472J	RC 4.7K OHM 1/16W
R2342	R808R9103J	RC 10K OHM 1/16W	R2916	R808R9472J	RC 4.7K OHM 1/16W
R2344	R808R9103J	RC 10K OHM 1/16W	R2917	R808R9472J	RC 4.7K OHM 1/16W
R2803	R808R9103J	RC 10K OHM 1/16W	R2919	R808R9103J	RC 10K OHM 1/16W
R2804	R808R9103J	RC 10K OHM 1/16W	R3004	R808R9390J	RC 39 OHM 1/16W
R2805	R808R9103J	RC 10K OHM 1/16W	R3005	R808R9390J	RC 39 OHM 1/16W
R2808	R808R9222J	RC 2.2K OHM 1/16W	R3007	R808R9472J	RC 4.7K OHM 1/16W
R2809	R808R9201F	RC 200 OHM 1/16W	R3008	R808R9102J	RC 1K OHM 1/16W
R2810	R808R9472J	RC 4.7K OHM 1/16W	R3012	R808R9682J	RC 6.8K OHM 1/16W
R2811	R808R9103J	RC 10K OHM 1/16W	R3014	R808R9103J	RC 10K OHM 1/16W
R2812	R808R9472J	RC 4.7K OHM 1/16W	R3016	R808R9103J	RC 10K OHM 1/16W
R2815	R808R9220J	RC 22 OHM 1/16W	R3017	R808R9822J	RC 8.2K OHM 1/16W
R2816	R808R9220J	RC 22 OHM 1/16W	R3018	R808R9562F	RC 5.6K OHM 1/16W
R2817	R808R9220J	RC 22 OHM 1/16W	R3019	R808R9332F	RC 3.3K OHM 1/16W
R2818	R808R9220J	RC 22 OHM 1/16W	R3020	R808R9102F	RC 1K OHM 1/16W
R2819	R808R9220J	RC 22 OHM 1/16W	R3022	R808R9752J	RC 7.5K OHM 1/16W
R2820	R808R9105J	RC 1M OHM 1/16W	R3023	R808R9223J	RC 22K OHM 1/16W
R2822	R808R9104J	RC 100K OHM 1/16W	R3025	R808R9682J	RC 6.8K OHM 1/16W
R2823	R808R9222J	RC 2.2K OHM 1/16W	R3026	R808R9472J	RC 4.7K OHM 1/16W
R2824	R808R9103J	RC 10K OHM 1/16W	R3027	R808R9822F	RC 8.2K OHM 1/16W
R2825	R808R9103J	RC 10K OHM 1/16W	R3028	R808R9302F	RC 3K OHM 1/16W
R2827	R808R9123F	RC 12K OHM 1/16W	R3030	R808R9183F	RC 18K OHM 1/16W
R2828	R808R9472J	RC 4.7K OHM 1/16W	R3031	R808R9332J	RC 3.3K OHM 1/16W
R2829	R808R9101F	RC 100 OHM 1/16W	R3032	R808R9103J	RC 10K OHM 1/16W
R2830	R808R9101F	RC 100 OHM 1/16W	R3033	R808R9103J	RC 10K OHM 1/16W
R2831	R808R9121J	RC 120 OHM 1/16W	R3034	R808R9123J	RC 12K OHM 1/16W
R2832	R808R9330J	RC 33 OHM 1/16W	R3035	R808R9432F	RC 4.3K OHM 1/16W
R2835	R808R9472J	RC 4.7K OHM 1/16W	R3036	R808R9273F	RC 27K OHM 1/16W
R2836	R808R9103J	RC 10K OHM 1/16W	R3039	R808R9103F	RC 10K OHM 1/16W
R2837	R808R9103J	RC 10K OHM 1/16W	R3602	R808R9472J	RC 4.7K OHM 1/16W
R2838	R808R9472J	RC 4.7K OHM 1/16W	R3603	R808R9100J	RC 10 OHM 1/16W
R2839	R808R9472J	RC 4.7K OHM 1/16W	R3604	R808R9100J	RC 10 OHM 1/16W
R2841	R808R9330J	RC 33 OHM 1/16W	R3605	R808R9472J	RC 4.7K OHM 1/16W
R2842	R808R94R7J	RC 4.7 OHM 1/16W	R3609	R808R9102J	RC 1K OHM 1/16W
R2843	R808R94R7J	RC 4.7 OHM 1/16W	R3610	R808R9223J	RC 22K OHM 1/16W
R2844	R808R9620F	RC 62 OHM 1/16W	R3611	R808R9102J	RC 1K OHM 1/16W
R2845	R808R9101F	RC 100 OHM 1/16W	R3614	R808R9223J	RC 22K OHM 1/16W
R2846	R808R9101F	RC 100 OHM 1/16W	R3615	R808R9473J	RC 47K OHM 1/16W
R2847	R808R9562F	RC 5.6K OHM 1/16W	R3616	R808R9473J	RC 47K OHM 1/16W
R2848	R808R9103J	RC 10K OHM 1/16W	R3617	R808R9473J	RC 47K OHM 1/16W
R2849	R808R9101J	RC 100 OHM 1/16W	R3618	R808R9473J	RC 47K OHM 1/16W
R2850	R808R9472J	RC 4.7K OHM 1/16W	R3635	R808R9332J	RC 3.3K OHM 1/16W



# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R3636	R808R9332J	RC 3.3K OHM 1/16W	R4019	R808R9133F	RC 13K OHM 1/16W
R3638	R808R9103J	RC 10K OHM 1/16W	R4020	R808R9103J	RC 10K OHM 1/16W
R3643	R808R9332J	RC 3.3K OHM 1/16W	R4024	R808R9104J	RC 100K OHM 1/16W
R3644	R808R9332J	RC 3.3K OHM 1/16W	R4026	R808R9103J	RC 10K OHM 1/16W
R3651	R808R9302J	RC 3K OHM 1/16W	R4027	R808R9330J	RC 33 OHM 1/16W
R3652	R808R9752J	RC 7.5K OHM 1/16W	R4031	R808R9330J	RC 33 OHM 1/16W
R3653	R808R9682F	RC 6.8K OHM 1/16W	R4034	R808R9103J	RC 10K OHM 1/16W
R3654	R808R9561F	RC 560 OHM 1/16W	R4039	R808R9512J	RC 5.1K OHM 1/16W
R3664	R808R9103J	RC 10K OHM 1/16W	R4040	R808R9103J	RC 10K OHM 1/16W
R3677	R808R9103J	RC 10K OHM 1/16W	R4042	R808R9103J	RC 10K OHM 1/16W
R3692	R808R9103J	RC 10K OHM 1/16W	R4043	R808R9330J	RC 33 OHM 1/16W
R3694	R808R9103J	RC 10K OHM 1/16W	R4044	R808R9103J	RC 10K OHM 1/16W
△ R3801	R8X2R8334J	RC 330K OHM 1/8W	R4045	R808R9472J	RC 4.7K OHM 1/16W
△ R3802	R8X2R8334J	RC 330K OHM 1/8W	R4046	R808R9681F	RC 680 OHM 1/16W
△ R3806	R002T25R6J	RC 5.6 OHM 1/2W	R4047	R808R9103J	RC 10K OHM 1/16W
△ R3807	R3K78AR27J	R,METAL OXIDE 0.27 OHM 2W	R4050	R808R9103J	RC 10K OHM 1/16W
R3808	R803R9102J	RC 1K OHM 1/16W	R4052	R808R9471J	RC 470 OHM 1/16W
R3809	R803R9473J	RC 47K OHM 1/16W	R4053	R808R9330J	RC 33 OHM 1/16W
R3811	R803R9222J	RC 2.2K OHM 1/16W	R4054	R808R9330J	RC 33 OHM 1/16W
R3812	R803R9562J	RC 5.6K OHM 1/16W	R4055	R803R96R8J	RC 6.8 OHM 1/16W
△ R3813	R3K78A563J	R,METAL OXIDE 56K OHM 2W	R4056	R808R9100J	RC 10 OHM 1/16W
R3814	R803R9102J	RC 1K OHM 1/16W	R4057	R808R9680J	RC 68 OHM 1/16W
R3815	R803R9103J	RC 10K OHM 1/16W	R4059	R808R9750F	RC 75 OHM 1/16W
△ R3816	R5X2AE1R2J	R,CEMENT 1.2 OHM 7W	R4060	R808R9750F	RC 75 OHM 1/16W
R3818	R803R9911F	RC 910 OHM 1/16W	R4061	R808R9750F	RC 75 OHM 1/16W
R3819	R803R9222F	RC 2.2K OHM 1/16W	R4062	R808R9750F	RC 75 OHM 1/16W
R3820	R803R9222F	RC 2.2K OHM 1/16W	R4066	R808R9330J	RC 33 OHM 1/16W
R3821	R002T4100J	RC 10 OHM 1/4W	R4212	R808R9682J	RC 6.8K OHM 1/16W
△ R3822	R3K781R22J	R,METAL OXIDE 0.22 OHM 1W	R4213	R808R9682J	RC 6.8K OHM 1/16W
△ R3823	R002T4101J	RC 100 OHM 1/4W	R4215	R808R9682J	RC 6.8K OHM 1/16W
R3824	R002T4102J	RC 1K OHM 1/4W	R4217	R808R9682J	RC 6.8K OHM 1/16W
R3825	R002T4123J	RC 12K OHM 1/4W	R4219	R808R9101J	RC 100 OHM 1/16W
R3826	R803R9333J	RC 33K OHM 1/16W	R4221	R808R9183J	RC 18K OHM 1/16W
R3829	R803R9102J	RC 1K OHM 1/16W	R4223	R808R9183J	RC 18K OHM 1/16W
△ R3830	R803R9562J	RC 5.6K OHM 1/16W	R4224	R808R9750J	RC 75 OHM 1/16W
R3831	R803R9333J	RC 33K OHM 1/16W	R4225	R808R9750J	RC 75 OHM 1/16W
R3833	R002T4472J	RC 4.7K OHM 1/4W	R4229	R808R9750J	RC 75 OHM 1/16W
R3834	R002T4123J	RC 12K OHM 1/4W	R4230	R808R9750J	RC 75 OHM 1/16W
R3837	R803R9152F	RC 1.5K OHM 1/16W	R4235	R808R9222J	RC 2.2K OHM 1/16W
R3838	R803R9183F	RC 18K OHM 1/16W	R4238	R808R9101J	RC 100 OHM 1/16W
R3839	R803R9222F	RC 2.2K OHM 1/16W	R4239	R808R9102J	RC 1K OHM 1/16W
R3840	R002T4564J	RC 560K OHM 1/4W	R4240	R808R9334J	RC 330K OHM 1/16W
R3842	R002T4564J	RC 560K OHM 1/4W	R4241	R808R9472J	RC 4.7K OHM 1/16W
R3843	R002T4394J	RC 390K OHM 1/4W	R4242	R808R9102J	RC 1K OHM 1/16W
R3846	R002T4102J	RC 1K OHM 1/4W	R4243	R808R9472J	RC 4.7K OHM 1/16W
R3848	R002T4472J	RC 4.7K OHM 1/4W	R4244	R808R9102J	RC 1K OHM 1/16W
R3849	R002T4472J	RC 4.7K OHM 1/4W	R4245	R808R9152J	RC 1.5K OHM 1/16W
△ R3851	R3K781330J	R,METAL OXIDE 33 OHM 1W	R4246	R808R9332J	RC 3.3K OHM 1/16W
△ R3852	R8X2R8334J	RC 330K OHM 1/8W	R4247	R808R9101J	RC 100 OHM 1/16W
R3855	R803R9474J	RC 470K OHM 1/16W	R4248	R808R9102J	RC 1K OHM 1/16W
R3901	R803R9101J	RC 100 OHM 1/16W	R4249	R808R9221J	RC 220 OHM 1/16W
R3902	R803R9122F	RC 1.2K OHM 1/16W	R4250	R808R9101J	RC 100 OHM 1/16W
R3904	R803R9303F	RC 30K OHM 1/16W	R4251	R808R9680J	RC 68 OHM 1/16W
R3909	R002T4101J	RC 100 OHM 1/4W	R4252	R808R9332J	RC 3.3K OHM 1/16W
R3910	R002T4102J	RC 1K OHM 1/4W	R4253	R808R9222J	RC 2.2K OHM 1/16W
R3913	R803R9103F	RC 10K OHM 1/16W	R4254	R808R9332J	RC 3.3K OHM 1/16W
R3917	R803R9752J	RC 7.5K OHM 1/16W	R4255	R808R9334J	RC 330K OHM 1/16W
R3918	R803R9390J	RC 39 OHM 1/16W	R4256	R808R9683J	RC 68K OHM 1/16W
R3919	R803R9103F	RC 10K OHM 1/16W	R4257	R808R9104J	RC 100K OHM 1/16W
R3920	R803R9224F	RC 220K OHM 1/16W	R4258	R808R9222J	RC 2.2K OHM 1/16W
R3921	R803R9223F	RC 22K OHM 1/16W	R4259	R808R9472J	RC 4.7K OHM 1/16W
R3922	R002T2472J	RC 4.7K OHM 1/2W	R4260	R808R9102J	RC 1K OHM 1/16W
R3923	R002T2472J	RC 4.7K OHM 1/2W	R4261	R808R9750J	RC 75 OHM 1/16W
R3924	R803R9822J	RC 8.2K OHM 1/16W	R4262	R808R9222J	RC 2.2K OHM 1/16W
R3926	R002T4682J	RC 6.8K OHM 1/4W	R4263	R808R9750J	RC 75 OHM 1/16W
R3931	R002T4102J	RC 1K OHM 1/4W	R4264	R808R9102J	RC 1K OHM 1/16W
R4002	R808R9103J	RC 10K OHM 1/16W	R4265	R808R9750J	RC 75 OHM 1/16W
R4004	R808R9103J	RC 10K OHM 1/16W	R4266	R808R9222J	RC 2.2K OHM 1/16W
R4005	R808R9151J	RC 150 OHM 1/16W	R4267	R808R9561J	RC 560 OHM 1/16W
R4006	R808R9472J	RC 4.7K OHM 1/16W	R4268	R808R9561J	RC 560 OHM 1/16W
R4007	R808R9472J	RC 4.7K OHM 1/16W	R4269	R808R9104J	RC 100K OHM 1/16W
R4009	R808R9330J	RC 33 OHM 1/16W	R4270	R808R9104J	RC 100K OHM 1/16W
R4014	R808R9153J	RC 15K OHM 1/16W	R4290	R808R9222J	RC 2.2K OHM 1/16W
R4015	R808R9133F	RC 13K OHM 1/16W	R4291	R808R9222J	RC 2.2K OHM 1/16W
R4016	R808R9822F	RC 8.2K OHM 1/16W	R4306	R808R9102J	RC 1K OHM 1/16W
R4017	R808R9103J	RC 10K OHM 1/16W	R4307	R808R9750J	RC 75 OHM 1/16W
R4018	R808R9133F	RC 13K OHM 1/16W	R4308	R808R9750J	RC 75 OHM 1/16W



# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			CAPACITORS		
R4309	R808R9101J	RC 100 OHM 1/16W	C323	CS0PB0415K	CC 0.1 UF 50V B
R4310	R808R9101J	RC 100 OHM 1/16W	C324	CS0PB0415K	CC 0.1 UF 50V B
R4311	R808R9330J	RC 33 OHM 1/16W	C325	CS0PB0415K	CC 0.1 UF 50V B
R4313	R808R9683J	RC 68K OHM 1/16W	C326	CS0PB0415K	CC 0.1 UF 50V B
R4315	R808R9153J	RC 15K OHM 1/16W	C327	CS0UB0413K	CC 0.001 UF 50V B
R4316	R808R9183J	RC 18K OHM 1/16W	C328	CS0UB0413K	CC 0.001 UF 50V B
R4317	R808R9183J	RC 18K OHM 1/16W	C329	CS0UB0413K	CC 0.001 UF 50V B
R4318	R808R9682J	RC 6.8K OHM 1/16W	C330	CS0UB0413K	CC 0.001 UF 50V B
R4319	R808R9682J	RC 6.8K OHM 1/16W	C331	CS0UB0413K	CC 0.001 UF 50V B
R4320	R808R9103J	RC 10K OHM 1/16W	C332	CS0UB0413K	CC 0.001 UF 50V B
R4321	R808R9183J	RC 18K OHM 1/16W	C333	CS0RB04Q5K	CC 0.47 UF 50V B
R4322	R808R9101J	RC 100 OHM 1/16W	C2203	CS0RB0PH7M	CC 22 UF 6.3V B
R4323	R808R9101J	RC 100 OHM 1/16W	C2204	CS0RB0PH7M	CC 22 UF 6.3V B
R4328	R808R9183J	RC 18K OHM 1/16W	C2301	CS0UB0N15K	CC 0.1 UF 10V B
R4329	R808R9101J	RC 100 OHM 1/16W	C2303	CS0UB0N15K	CC 0.1 UF 10V B
R4330	R808R9101J	RC 100 OHM 1/16W	C2304	E7ESU2470M	CE 47 UF 16V
R4333	R808R9750J	RC 75 OHM 1/16W	C2305	CS0UB0N15K	CC 0.1 UF 10V B
R4334	R808R9750J	RC 75 OHM 1/16W	C2306	E7EXU1101D	CE 100 UF 10V
R4335	R808R9750J	RC 75 OHM 1/16W	C2307	CS0UB0N15K	CC 0.1 UF 10V B
R4336	R808R9472J	RC 4.7K OHM 1/16W	C2308	CS0UCH4L1J	CC 33 PF 50V CH
R4337	R808R9472J	RC 4.7K OHM 1/16W	C2311	CS0UB0N15K	CC 0.1 UF 10V B
R4347	R808R9330J	RC 33 OHM 1/16W	C2319	CS0UB0314K	CC 0.01 UF 25V B
R5806	R808R9101J	RC 100 OHM 1/16W	C2320	E7ESU2470M	CE 47 UF 16V
R5807	R808R9101J	RC 100 OHM 1/16W	C2321	E7ESU2470M	CE 47 UF 16V
R5808	R808R9750J	RC 75 OHM 1/16W	C2322	CS0UB0NH5K	CC 0.22 UF 10V B
R5809	R808R9750J	RC 75 OHM 1/16W	C2323	CS0UB0NH5K	CC 0.22 UF 10V B
R5810	R808R9472J	RC 4.7K OHM 1/16W	C2325	CS0UB0315K	CC 0.1 UF 25V B
R5814	R808R9332J	RC 3.3K OHM 1/16W	C2327	CS0UB0315K	CC 0.1 UF 25V B
R5815	R808R9332J	RC 3.3K OHM 1/16W	C2328	CS0UB0315K	CC 0.1 UF 25V B
R5816	R808R9102J	RC 1K OHM 1/16W	C2329	CS0UB0315K	CC 0.1 UF 25V B
R5817	R808R9153J	RC 15K OHM 1/16W	C2330	CS0UB0315K	CC 0.1 UF 25V B
R5818	R808R9153J	RC 15K OHM 1/16W	C2331	CS0UB0315K	CC 0.1 UF 25V B
R5824	R808R9102J	RC 1K OHM 1/16W	C2332	CS0UCH411J	CC 10 PF 50V CH
R6207	R808R9103J	RC 10K OHM 1/16W	C2333	CS0UB0314K	CC 0.01 UF 25V B
R6208	R808R9472J	RC 4.7K OHM 1/16W	C2334	CS0UB0314K	CC 0.01 UF 25V B
R6501	R808R9101J	RC 100 OHM 1/16W	C2335	CS0UCH412J	CC 100 PF 50V CH
R6502	R808R9101J	RC 100 OHM 1/16W	C2801	CS0UB0N15K	CC 0.1 UF 10V B
R8501	R808R9100J	RC 10 OHM 1/16W	C2803	CS0UB0214K	CC 0.01 UF 16V B
R8502	R808R9100J	RC 10 OHM 1/16W	C2804	CS0PB0NQ5K	CC 0.47 UF 10V B
R8503	R808R9334J	RC 330K OHM 1/16W	C2805	CS0UB0214K	CC 0.01 UF 16V B
R8504	R808R9103J	RC 10K OHM 1/16W	C2807	CS0UCH4H1J	CC 22 PF 50V CH
R8505	R808R9103J	RC 10K OHM 1/16W	C2808	CS0UCH4K1J	CC 27 PF 50V CH
R8506	R808R9334J	RC 330K OHM 1/16W	C2811	CS0RB0N17K	CC 10 UF 10V B
R8507	R808R9100J	RC 10 OHM 1/16W	C2812	CS0UB0N15K	CC 0.1 UF 10V B
R8509	R808R9223J	RC 22K OHM 1/16W	C2813	CS0UB0N15K	CC 0.1 UF 10V B
R8510	R808R9223J	RC 22K OHM 1/16W	C2814	CS0UB0N15K	CC 0.1 UF 10V B
R8511	R808R9103J	RC 10K OHM 1/16W	C2815	CS0UB0N15K	CC 0.1 UF 10V B
R8513	R808R9103J	RC 10K OHM 1/16W	C2816	CS0UB0N15K	CC 0.1 UF 10V B
R8515	R808R9103J	RC 10K OHM 1/16W	C2817	CS0UB0N15K	CC 0.1 UF 10V B
R8516	R808R9103J	RC 10K OHM 1/16W	C2818	CS0UB0N15K	CC 0.1 UF 10V B
R8519	R808R9101J	RC 100 OHM 1/16W	C2819	CS0UB0N15K	CC 0.1 UF 10V B
R8522	R808R9223J	RC 22K OHM 1/16W	C2820	CS0UB0N15K	CC 0.1 UF 10V B
R8523	R808R9223J	RC 22K OHM 1/16W	C2821	CS0UB0N15K	CC 0.1 UF 10V B
R8525	R808R9221J	RC 220 OHM 1/16W	C2822	CS0UB0N15K	CC 0.1 UF 10V B
R8526	R808R9221J	RC 220 OHM 1/16W	C2823	CS0UB0N15K	CC 0.1 UF 10V B
CAPACITORS			C2824	CS0UB0N15K	CC 0.1 UF 10V B
C300	CS0UB0N15K	CC 0.1 UF 10V B	C2825	CS0UB0N15K	CC 0.1 UF 10V B
C301	CS0UB0N15K	CC 0.1 UF 10V B	C2826	CS0UB0N15K	CC 0.1 UF 10V B
C302	CS0UB0N15K	CC 0.1 UF 10V B	C2827	CS0UB0N15K	CC 0.1 UF 10V B
C304	CS0UB0413K	CC 0.001 UF 50V B	C2828	CS0UB0N15K	CC 0.1 UF 10V B
C305	CS0UB04Q3K	CC 0.0047UF 50V B	C2829	CS0UB0N15K	CC 0.1 UF 10V B
C306	CS0UB0N15K	CC 0.1 UF 10V B	C2830	CS0UB0N15K	CC 0.1 UF 10V B
C307	CS0RB04Q5K	CC 0.47 UF 50V B	C2831	CS0UB0N15K	CC 0.1 UF 10V B
C308	CS0UCH4U2J	CC 680 PF 50V CH	C2832	CS0UB0N15K	CC 0.1 UF 10V B
C309	CS0PB0316K	CC 1 UF 25V B	C2833	CS0UB0N15K	CC 0.1 UF 10V B
C310	CS0PB0316K	CC 1 UF 25V B	C2834	CS0UB0N15K	CC 0.1 UF 10V B
C311	CS0PB0315K	CC 0.1 UF 25V B	C2835	CS0UB0N15K	CC 0.1 UF 10V B
C312	CS0PB0315K	CC 0.1 UF 25V B	C2836	CS0UB0N15K	CC 0.1 UF 10V B
C313	E7EST4471M	CE 470 UF 35V	C2837	CS0UB0N15K	CC 0.1 UF 10V B
C315	CS0PB0315K	CC 0.1 UF 25V B	C2838	CS0UB0N15K	CC 0.1 UF 10V B
C316	CS0PB0315K	CC 0.1 UF 25V B	C2839	CS0UB0N15K	CC 0.1 UF 10V B
C317	CS0UB04L2K	CC 330 PF 50V B	C2840	CS0UB0N15K	CC 0.1 UF 10V B
C318	CS0UB04L2K	CC 330 PF 50V B	C2841	E81XML331D	CE 330 UF 2.5V
C319	CS0PB0415K	CC 0.1 UF 50V B	C2842	CS0UB0N16K	CC 1 UF 10V B
C320	CS0PB0415K	CC 0.1 UF 50V B	C2843	CS0UB0N15K	CC 0.1 UF 10V B
C321	CS0PB0415K	CC 0.1 UF 50V B	C2844	CS0UB0N15K	CC 0.1 UF 10V B
C322	CS0PB0415K	CC 0.1 UF 50V B	C2845	CS0UB0N15K	CC 0.1 UF 10V B



# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
CAPACITORS			CAPACITORS		
C2846	CS0UB0N15K	CC 0.1 UF 10V B	C2938	CS0UB0N15K	CC 0.1 UF 10V B
C2847	CS0UB0N15K	CC 0.1 UF 10V B	C2939	CS0UB0N15K	CC 0.1 UF 10V B
C2848	CS0UB0N16K	CC 1 UF 10V B	C2940	CS0UB0N15K	CC 0.1 UF 10V B
C2851	E7EPU2221M	CE 220 UF 16V	C2941	CS0UB0N15K	CC 0.1 UF 10V B
C2854	CS0PB0315K	CC 0.1 UF 25V B	C2942	CS0UB0N15K	CC 0.1 UF 10V B
C2855	CS0RB0N17K	CC 10 UF 10V B	C2943	CS0UB0N15K	CC 0.1 UF 10V B
C2856	CS0RB0N17K	CC 10 UF 10V B	C2944	CS0UB0N15K	CC 0.1 UF 10V B
C2857	CS0UB0N15K	CC 0.1 UF 10V B	C2945	CS0UB0N15K	CC 0.1 UF 10V B
C2858	CS0UB0N15K	CC 0.1 UF 10V B	C2946	CS0PB0N16K	CC 1 UF 10V B
C2859	CS0UB0N15K	CC 0.1 UF 10V B	C2948	CS0PB0N16K	CC 1 UF 10V B
C2860	CS0RB0N17K	CC 10 UF 10V B	C2950	CS0UB0N15K	CC 0.1 UF 10V B
C2861	CS0RB0N17K	CC 10 UF 10V B	C2951	CS0RB0N17K	CC 10 UF 10V B
C2862	CS0RB0N17K	CC 10 UF 10V B	C2952	CS0PB0N16K	CC 1 UF 10V B
C2863	CS0RB0N17K	CC 10 UF 10V B	C2953	CS0UB0N15K	CC 0.1 UF 10V B
C2864	CS0UB0N15K	CC 0.1 UF 10V B	C2954	CS0UB0N15K	CC 0.1 UF 10V B
C2865	CS0UB0N15K	CC 0.1 UF 10V B	C2955	CS0UB0N15K	CC 0.1 UF 10V B
C2866	CS0UB0N15K	CC 0.1 UF 10V B	C2956	CS0UB0N15K	CC 0.1 UF 10V B
C2867	CS0UB0N15K	CC 0.1 UF 10V B	C2957	CS0UB0N15K	CC 0.1 UF 10V B
C2868	CS0UB0N15K	CC 0.1 UF 10V B	C2958	CS0UB0N15K	CC 0.1 UF 10V B
C2869	CS0UB0N15K	CC 0.1 UF 10V B	C2959	E7EXU2220D	CE 22 UF 16V
C2870	CS0UB0N16K	CC 1 UF 10V B	C2960	CS0UB0N15K	CC 0.1 UF 10V B
C2871	CS0UB0N16K	CC 1 UF 10V B	C2961	CS0UCH4Q2J	CC 470 PF 50V CH
C2872	CS0RB0N17K	CC 10 UF 10V B	C2962	CS0UCH4Q2J	CC 470 PF 50V CH
C2873	CS0UB0N15K	CC 0.1 UF 10V B	C2963	CS0UB0N15K	CC 0.1 UF 10V B
C2874	CS0UB0N15K	CC 0.1 UF 10V B	C2964	CS0UB0N15K	CC 0.1 UF 10V B
C2875	CS0UB0N15K	CC 0.1 UF 10V B	C2966	CS0RB0N17K	CC 10 UF 10V B
C2876	CS0UB0N15K	CC 0.1 UF 10V B	C2967	CS0PB0N16K	CC 1 UF 10V B
C2877	CS0UB0N15K	CC 0.1 UF 10V B	C2972	CS0PB0N16K	CC 1 UF 10V B
C2878	CS0UB0N16K	CC 1 UF 10V B	C2974	CS0PB0N16K	CC 1 UF 10V B
C2879	CS0UB0N15K	CC 0.1 UF 10V B	C2976	CS0UB0N15K	CC 0.1 UF 10V B
C2880	CS0UB0N15K	CC 0.1 UF 10V B	C2979	CS0UB0N15K	CC 0.1 UF 10V B
C2881	CS0UB0N15K	CC 0.1 UF 10V B	C2980	CS0UB0N15K	CC 0.1 UF 10V B
C2882	CS0UB0N15K	CC 0.1 UF 10V B	C2981	CS0UB0N15K	CC 0.1 UF 10V B
C2883	CS0UB0N15K	CC 0.1 UF 10V B	C2982	CS0UB0N15K	CC 0.1 UF 10V B
C2884	CS0UB0N15K	CC 0.1 UF 10V B	C2984	CS0PB0N16K	CC 1 UF 10V B
C2885	CS0UB0N15K	CC 0.1 UF 10V B	C2986	E7EPU0331M	CE 330 UF 6.3V
C2886	CS0UB0N15K	CC 0.1 UF 10V B	C3002	CS0RB02Q6K	CC 4.7 UF 16V B
C2887	CS0UB0N15K	CC 0.1 UF 10V B	C3003	CS0PB0415K	CC 0.1 UF 50V B
C2888	CS0UB0N15K	CC 0.1 UF 10V B	C3004	CS0UB0N15K	CC 0.1 UF 10V B
C2889	CS0UB0N15K	CC 0.1 UF 10V B	C3006	CS0RB02Q6K	CC 4.7 UF 16V B
C2891	CS0UB0N15K	CC 0.1 UF 10V B	C3008	CS0UB0413K	CC 0.001 UF 50V B
C2897	CS0UB0N15K	CC 0.1 UF 10V B	C3009	CS0RB0N17K	CC 10 UF 10V B
C2898	CS0UB0N16K	CC 1 UF 10V B	C3011	CS0PB0N16K	CC 1 UF 10V B
C2899	CS0UB0N16K	CC 1 UF 10V B	C3012	CS0UB0N15K	CC 0.1 UF 10V B
C2900	CS0UB0N15K	CC 0.1 UF 10V B	C3014	CS0RB0N17K	CC 10 UF 10V B
C2902	CS0UB0N16K	CC 1 UF 10V B	C3015	CS0UB0N15K	CC 0.1 UF 10V B
C2903	CS0UB0N16K	CC 1 UF 10V B	C3016	CS0PB0315K	CC 0.1 UF 25V B
C2904	CS0UB0N15K	CC 0.1 UF 10V B	C3017	CS0PB0315K	CC 0.1 UF 25V B
C2905	CS0UB0N15K	CC 0.1 UF 10V B	C3020	CS0RB0N17K	CC 10 UF 10V B
C2906	CS0UB0N16K	CC 1 UF 10V B	C3022	CS0UB03E4K	CC 0.015 UF 25V B
C2907	CS0UB0N16K	CC 1 UF 10V B	C3023	CS0UB0NH5K	CC 0.22 UF 10V B
C2908	CS0UB0N16K	CC 1 UF 10V B	C3024	CS0UB0314K	CC 0.01 UF 25V B
C2909	CS0UB0N15K	CC 0.1 UF 10V B	C3025	CS0RB0N17K	CC 10 UF 10V B
C2911	CS0RB0N17K	CC 10 UF 10V B	C3027	CS0RB0N17K	CC 10 UF 10V B
C2912	CS0UB0N15K	CC 0.1 UF 10V B	C3029	CS0UB04H4K	CC 0.022 UF 50V B
C2913	CS0UB0N15K	CC 0.1 UF 10V B	C3031	E71GMM151D	CE 150 UF 2V
C2914	CS0UB0N15K	CC 0.1 UF 10V B	C3032	CS0UB0N15K	CC 0.1 UF 10V B
C2915	CS0UB0N16K	CC 1 UF 10V B	C3034	CS0UB0N15K	CC 0.1 UF 10V B
C2916	CS0UB0N15K	CC 0.1 UF 10V B	C3035	CS0UB0314K	CC 0.01 UF 25V B
C2917	CS0RB0N17K	CC 10 UF 10V B	C3036	CS0UB0413K	CC 0.001 UF 50V B
C2918	CS0RB0N17K	CC 10 UF 10V B	C3039	CS0UB03E4K	CC 0.015 UF 25V B
C2919	CS0UB0N16K	CC 1 UF 10V B	C3043	CS0PB0315K	CC 0.1 UF 25V B
C2921	CS0UB0N15K	CC 0.1 UF 10V B	C3045	CS0RB0N17K	CC 10 UF 10V B
C2923	CS0PB0N16K	CC 1 UF 10V B	C3054	CS0UB0413K	CC 0.001 UF 50V B
C2925	CS0RB0N17K	CC 10 UF 10V B	C3057	E71GMQ101D	CE 100 UF 4V
C2926	CS0RB0N17K	CC 10 UF 10V B	C3058	E7EPU2101M	CE 100 UF 16V
C2927	CS0RB0N17K	CC 10 UF 10V B	C3059	CS0UB03Q4K	CC 0.047 UF 25V B
C2928	CS0RB0N17K	CC 10 UF 10V B	C3062	CS0UB0N15K	CC 0.1 UF 10V B
C2929	CS0RB0N17K	CC 10 UF 10V B	C3064	CS0PB0PQ6K	CC 4.7 UF 6.3V B
C2930	CS0RB0N17K	CC 10 UF 10V B	C3065	CS0RB02Q6K	CC 4.7 UF 16V B
C2931	CS0UB0N15K	CC 0.1 UF 10V B	C3601	CS0UB0N15K	CC 0.1 UF 10V B
C2932	CS0UB0N15K	CC 0.1 UF 10V B	C3602	CS0UB0N15K	CC 0.1 UF 10V B
C2933	CS0UB0N15K	CC 0.1 UF 10V B	C3607	CS0UB0214K	CC 0.01 UF 16V B
C2934	CS0UB0N15K	CC 0.1 UF 10V B	C3608	CS0UB04H3K	CC 0.0022UF 50V B
C2935	CS0RB0N17K	CC 10 UF 10V B	C3609	CS0UB0N15K	CC 0.1 UF 10V B
C2936	CS0UB0N15K	CC 0.1 UF 10V B	C3610	CS0PB0PQ6K	CC 4.7 UF 6.3V B
C2937	CS0UB0N15K	CC 0.1 UF 10V B	C3613	CS0UB03H4K	CC 0.022 UF 25V B



# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
CAPACITORS			CAPACITORS		
C3627	CS0UB0N15K	CC 0.1 UF 10V B	C4029	CS0UB0N15K	CC 0.1 UF 10V B
△ C3801	P4K12D224K	CMPP 0.22 UF 310V	C4033	CS0UCH4K1J	CC 27 PF 50V CH
△ C3802	C03L0R713K	CC 0.001 UF 2KV R	C4036	CS0UB0N15K	CC 0.1 UF 10V B
△ C3803	CE39E0MQ2K	CC 470 PF 250V E	C4037	CS0UCH4K1J	CC 27 PF 50V CH
△ C3805	CS0PB0415K	CC 0.1 UF 50V B	C4038	CS0UB0N15K	CC 0.1 UF 10V B
△ C3806	CE39E0MQ2K	CC 470 PF 250V E	C4041	CS0UCH412J	CC 100 PF 50V CH
△ C3808	P4K12D224K	CMPP 0.22 UF 310V	C4043	CS0UB0314K	CC 0.01 UF 25V B
△ C3809	CS0PB04N4K	CC 0.039 UF 50V B	C4044	E7EXU2220D	CE 22 UF 16V
△ C3810	E8E2U54R7D	CE 4.7 UF 50V	C4045	CS0UB03U3K	CC 0.0068UF 25V B
△ C3811	P232T1563J	CMP 0.056 UF 100V MMTV	C4047	E7EXU1221D	CE 220 UF 10V
C3812	CS0PB0413K	CC 0.001 UF 50V B	C4048	CS0UB0413K	CC 0.001 UF 50V B
C3813	CS0PCH4B2J	CC 120 PF 50V CH	C4049	CS0UB0413K	CC 0.001 UF 50V B
△ C3816	P3N5F5103J	CPP 0.01UF 630V PP	C4050	E7ESU0221M	CE 220 UF 6.3V
△ C3817	CE39E0MH2K	CC 220 PF 250V E	C4052	CS0UB0N15K	CC 0.1 UF 10V B
△ C3819	E8E2U5470D	CE 47 UF 50V	C4053	CS0UB0413K	CC 0.001 UF 50V B
△ C3820	E718HC471D	CE 470 UF 200V	C4054	CS0UB0314K	CC 0.01 UF 25V B
△ C3822	E83YF4471D	CE 470 UF 35V	C4055	CS0UB0N15K	CC 0.1 UF 10V B
△ C3823	E83YT3471D	CE 470 UF 25V	C4057	CS0UB0413K	CC 0.001 UF 50V B
△ C3824	E8E1F5102D	CE 1000 UF 50V	C4058	CS0UB0N15K	CC 0.1 UF 10V B
△ C3825	E8E1F1222D	CE 2200 UF 10V	C4059	CS0UB04E3K	CC 0.0015UF 50V B
△ C3826	E8E2U54R7D	CE 4.7 UF 50V	C4060	CS0UB0413K	CC 0.001 UF 50V B
C3828	CS0PB04U4K	CC 0.068 UF 50V B	C4062	CS0UB0N15K	CC 0.1 UF 10V B
△ C3829	E7EST1471M	CE 470 UF 10V	C4063	CS0UB0N15K	CC 0.1 UF 10V B
△ C3831	E83YT3471D	CE 470 UF 25V	C4064	CS0UB0N15K	CC 0.1 UF 10V B
C3832	CS0PB0415K	CC 0.1 UF 50V B	C4066	CS0UB0P16K	CC 1 UF 6.3V B
△ C3833	E7EYT5101M	CE 100 UF 50V	C4071	CS0UB0413K	CC 0.001 UF 50V B
C3835	E8E2U5100D	CE 10 UF 50V	C4072	CS0UCH412J	CC 100 PF 50V CH
△ C3836	E7ESU2221M	CE 220 UF 16V	C4073	CS0UB0N15K	CC 0.1 UF 10V B
C3837	CS3RB0416K	CC 1 UF 50V B	C4074	CS0UB0N15K	CC 0.1 UF 10V B
C3838	E8E2U5100D	CE 10 UF 50V	C4075	CS0UCH4H1J	CC 22 PF 50V CH
C3839	E8E2U5100D	CE 10 UF 50V	C4076	CS0UCH412J	CC 100 PF 50V CH
C3901	CS8RB02Q6K	CC 4.7 UF 16V B	C4088	CS0UCH4H2J	CC 220 PF 50V CH
C3902	CS0RB0N17K	CC 10 UF 10V B	C4089	CS0UB03E4K	CC 0.015 UF 25V B
C3903	CS0RB0N17K	CC 10 UF 10V B	C4090	CS0UB0N15K	CC 0.1 UF 10V B
C3904	CS0PB0315K	CC 0.1 UF 25V B	C4101	CS0UCH4K2J	CC 270 PF 50V CH
C3905	CS0RB0N17K	CC 10 UF 10V B	C4102	CS0UCH4K2J	CC 270 PF 50V CH
C3906	CS0PB0315K	CC 0.1 UF 25V B	C4122	CS0UCH412J	CC 100 PF 50V CH
C3908	E7ESU2101M	CE 100 UF 16V	C4123	CS0UCH412J	CC 100 PF 50V CH
C3909	E8E2U3101D	CE 100 UF 25V	C4220	CS0UCH411J	CC 10 PF 50V CH
C3911	CS0PB0315K	CC 0.1 UF 25V B	C4224	CS0UCH411J	CC 10 PF 50V CH
C3912	CS0PB04H3K	CC 0.0022UF 50V B	C4225	CS0UCH411J	CC 10 PF 50V CH
C3913	CS0PB0315K	CC 0.1 UF 25V B	C4230	CS0UB0N15K	CC 0.1 UF 10V B
C3914	CS8RB02Q6K	CC 4.7 UF 16V B	C4231	E7EPU2470M	CE 47 UF 16V
C3916	CS0PB04E4K	CC 0.015 UF 50V B	C4235	CS0RB0N17K	CC 10 UF 10V B
C3917	CS0PB04H4K	CC 0.022 UF 50V B	C4236	CS0UB0N16K	CC 1 UF 10V B
C3918	CS0PB0316K	CC 1 UF 25V B	C4237	CS0UCH4Q2J	CC 470 PF 50V CH
C3921	E8E1U0471M	CE 470 UF 6.3V	C4239	CS0RB0N17K	CC 10 UF 10V B
C3922	CS0PB03E5K	CC 0.15 UF 25V B	C4240	CS0UB0N15K	CC 0.1 UF 10V B
C3923	CS0PB03E5K	CC 0.15 UF 25V B	C4242	CS0RB0N17K	CC 10 UF 10V B
C3924	CS0PB02E5K	CC 0.15 UF 16V B	C4243	CS0UCH4Q2J	CC 470 PF 50V CH
C3925	E8E2U1221D	CE 220 UF 10V	C4245	CS0PB0N16K	CC 1 UF 10V B
C3926	CS0PB02E5K	CC 0.15 UF 16V B	C4246	CS0RB0N17K	CC 10 UF 10V B
C3930	CS0PB0315K	CC 0.1 UF 25V B	C4247	CS0UCH412J	CC 100 PF 50V CH
C3931	CS0PB0315K	CC 0.1 UF 25V B	C4250	CS0RB0N17K	CC 10 UF 10V B
C3932	CS0PB0315K	CC 0.1 UF 25V B	C4251	CS0RB0N17K	CC 10 UF 10V B
C3933	CS0PB0315K	CC 0.1 UF 25V B	C4284	E7EPU2470M	CE 47 UF 16V
C3937	CS3RB0416K	CC 1 UF 50V B	C5801	CS0UB0N15K	CC 0.1 UF 10V B
C3940	CS0RB03Q6K	CC 4.7 UF 25V B	C5805	CS0UCH4Q1J	CC 47 PF 50V CH
C3942	CS0RB03Q6K	CC 4.7 UF 25V B	C5806	E7EPU0221M	CE 220 UF 6.3V
C3943	E7ESU5100M	CE 10 UF 50V	C5808	CS0UB0N15K	CC 0.1 UF 10V B
C3944	CS0RB03Q6K	CC 4.7 UF 25V B	C5809	CS0UCH4Q1J	CC 47 PF 50V CH
C3946	CS0PB0414K	CC 0.01 UF 50V B	C5816	CS0UCH4L1J	CC 33 PF 50V CH
C3947	CS0RB03Q6K	CC 4.7 UF 25V B	C5818	CS0UB0N15K	CC 0.1 UF 10V B
C3948	E7ESU1331M	CE 330 UF 10V	C5819	CS0UB0N15K	CC 0.1 UF 10V B
C3950	CS0PB0413K	CC 0.001 UF 50V B	C5822	CS0UCH4L1J	CC 33 PF 50V CH
C4001	CS0UB0N15K	CC 0.1 UF 10V B	C5823	CS0UCH4N1J	CC 39 PF 50V CH
C4003	CS0UB0N15K	CC 0.1 UF 10V B	C5829	CS0PB02L5K	CC 0.33 UF 16V B
C4005	CS0UB0N15K	CC 0.1 UF 10V B	C5832	CS0UB0N15K	CC 0.1 UF 10V B
C4006	CS0UB0P16K	CC 1 UF 6.3V B	C5838	E7EPU0221M	CE 220 UF 6.3V
C4007	CS0UB0N15K	CC 0.1 UF 10V B	C5844	CS0RB0N17K	CC 10 UF 10V B
C4008	CS0UB0N15K	CC 0.1 UF 10V B	C6201	CS0UB0215K	CC 0.1 UF 16V B
C4012	CS0UCH412J	CC 100 PF 50V CH	C6202	CS0UB0215K	CC 0.1 UF 16V B
C4013	CS0UB0N15K	CC 0.1 UF 10V B	C6210	CS0UB0P14K	CC 0.01 UF 6.3V B
C4015	E7ESU0221M	CE 220 UF 6.3V	C6213	CS0PB0N16K	CC 1 UF 10V B
C4019	CS0RB0PQ6K	CC 4.7 UF 6.3V B	C6221	CS0UB0N15K	CC 0.1 UF 10V B
C4020	CS0UB0N15K	CC 0.1 UF 10V B	C8056	CS0UCH4S2J	CC 560 PF 50V CH
C4023	CS0UB0N15K	CC 0.1 UF 10V B	C8501	CS0RB0N17K	CC 10 UF 10V B



# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
CAPACITORS				ICS			
C8502	CS0RB0N17K	CC	10 UF 10V B	△ IC3001	I53F9V5800	2.5A STEP DOWN SW REG +-1.5%	LV5809NMX-TLM-H
C8503	CS0RB0N17K	CC	10 UF 10V B	IC3002	I1ZF9110D0	VO=11V REG	R1190H110D-T1-F
C8504	CS0UCH412J	CC	100 PF 50V CH	△ IC3003	IGRF0704U0	2A DROPOUT LINEAR REGULATOR	UP7704U8
C8507	CS0UCH4S2J	CC	560 PF 50V CH	IC3005	I1ZF9331D0	REGULATOR 3.3V	RP131H331D-T1-F
C8511	CS0UB0N15K	CC	0.1 UF 10V B	△ IC3006	I53F9V5800	2.5A STEP DOWN SW REG +-1.5%	LV5809NMX-TLM-H
C8512	CS0UB0N15K	CC	0.1 UF 10V B	△ IC3801	I2BT067350	VDSS=500V RON=0.7OHM	STR-Y6735
C8513	E7EXU2100D	CE	10 UF 16V	△ IC3802	I1KJ9A431A	VARIABLE SHUNT REGULATOR TAPE	KIA431A-AT
C8514	CS0UCH412J	CC	100 PF 50V CH	△ IC3804	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
C8516	CS0UCH412J	CC	100 PF 50V CH	△ IC3805	I1KJ9A431A	VARIABLE SHUNT REGULATOR TAPE	KIA431A-AT
C8517	CS0UCH4U1J	CC	68 PF 50V CH	△ IC3901	I53F958930	1.8A 1CH STEP DOWN SW REG	LV5893M
C8518	CS0UCH4U1J	CC	68 PF 50V CH	△ IC3902	I1ZF9501D0	REGULATOR 5V	RP131H501D-T1-F
C8519	E7EXU2100D	CE	10 UF 16V	△ IC3903	I03F9797M0	CHARGE PUMP CONTROL	LA5797M-TE-L-E
C8520	CS0UB0314K	CC	0.01 UF 25V B	IC4001	IC8K0389K0	DVD MPEG 128PIN MEDIATEK	MT1389QE/K
C8521	CS0RB0N17K	CC	10 UF 10V B	IC4004	-----	MEMORY DATA 16MBIT FLASH 100MHZ	EN25Q16-100HIP
C8522	CS0RB0N17K	CC	10 UF 10V B	IC4005	IGXJ01620F	SDRAM 64M CL=2	HY57V641620FTP-7
C8523	CS0UB0N15K	CC	0.1 UF 10V B	IC6201	IC7J0291C0	RESET IC 2.9 V TYPE CMOS	R3111N291C-TR-F
C8524	CS0UCH412J	CC	100 PF 50V CH	IC6502	I55F0A53FU	A/V SW 2IN 1OUT	TC7PA53FU(T5L,F,T)
C8525	CS0UCH412J	CC	100 PF 50V CH	IC8501	I0QF045650	DUAL OPEAMP	NJM4565M(TE1)
C8529	CS0UB0314K	CC	0.01 UF 25V B	△ IC8502	I1ZF981D50	REGULATOR 1.8V	RP131H181D5-T1-F
C8530	CS0UB0314K	CC	0.01 UF 25V B	TRANSISTORS			
C8531	E7EST0102M	CE	1000 UF 6.3V	Q2301	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8532	CS0UB0N15K	CC	0.1 UF 10V B	Q2302	TAAA1505SY	TRANSISTOR SILICON	KTA1505S-Y-RTK/P
C8533	E7ESU0101M	CE	100 UF 6.3V	Q2303	TAAA1505SY	TRANSISTOR SILICON	KTA1505S-Y-RTK/P
C8534	CS0UB0413K	CC	0.001 UF 50V B	Q2304	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8535	CS0UB0413K	CC	0.001 UF 50V B	Q2305	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8536	CS0UB0314K	CC	0.01 UF 25V B	Q2805	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8538	CS0UB0413K	CC	0.001 UF 50V B	Q2806	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8539	CS0UB0413K	CC	0.001 UF 50V B	Q2807	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8540	CS0RB0N17K	CC	10 UF 10V B	Q3001	TJ5A104TU0	FET	SSM3K104TU(T5L,T)
DIODES				Q3003	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
D2201	0021E9Q010	LED	LTL-1BEFJ-002A	Q3007	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D2301	DDARR730E0	DIODE SCHOTTKY BARRIER	KDR730E-RTK/P	Q3008	TJ5MC61100	FET	TPC6110(TE85L,F,M)
D2302	DDARR730E0	DIODE SCHOTTKY BARRIER	KDR730E-RTK/P	Q3010	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D3001	D2ARMAB340	DIODE SCHOTTKY	SMAB34	Q3601	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
D3003	D2ARMAB340	DIODE SCHOTTKY	SMAB34	Q3602	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
D3004	D2ARMAB340	DIODE SCHOTTKY	SMAB34	Q3604	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
D3007	D2ARMAB340	DIODE SCHOTTKY	SMAB34	Q3605	T27T035410	FET	2SK3541_T2L
D3601	D61R0V8001	DIODE VARISTA	EZJZ0V80010	Q3606	T27T035410	FET	2SK3541_T2L
D3602	D61R0V8001	DIODE VARISTA	EZJZ0V80010	Q3607	T27T035410	FET	2SK3541_T2L
D3604	D61R0V8001	DIODE VARISTA	EZJZ0V80010	Q3608	T27T035410	FET	2SK3541_T2L
D3605	D61R0V8001	DIODE VARISTA	EZJZ0V80010	Q3610	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
△ D3803	D7KE101520	DIODE VARISTA	S10K150E2S5M4	Q3611	T27T035410	FET	2SK3541_T2L
△ D3804	D97U06R81B	DIODE,ZENER	MTZJ6.8B T-77	Q3613	T27T035410	FET	2SK3541_T2L
△ D3807	D97U03301B	DIODE,ZENER	MTZJ33B T-77	△ Q3802	TJ3MTP2010	FET	ATP201-V-TL-H
△ D3808	D2LZKB4J0	DIODE	KB4J	△ Q3805	TAAA1504SY	TRANSISTOR SILICON	KTA1504S_Y_RTK
D3809	D97U01201B	DIODE,ZENER	MTZJ12B T-77	△ Q3806	TJ3MTP2010	FET	ATP201-V-TL-H
D3812	D2LT001F50	DIODE SILICON	1F5-E	△ Q3807	T23GK37030	FET	2SK3703
△ D3813	D2BXARS010	DIODE SILICON	SARS01-V1	Q3903	TNAAA05001	COMPOUND TRANSISTOR	KRC101S-RTK
△ D3815	D2LT001F50	DIODE SILICON	1F5-E	Q3904	TJ5MC81160	FET	TPC8116-H(T2LORIOQ
△ D3816	D28A10A200	DIODE SILICON	FCF10A20	Q3905	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
△ D3817	D2AA045CT0	DIODE SCHOTTKY BARRIER	MBRF1045CT	Q3906	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
△ D3818	D28A10A200	DIODE SILICON	FCF10A20	Q4203	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
△ D3819	D28A10A200	DIODE SILICON	FCF10A20	Q4204	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
△ D3820	D2LT001F50	DIODE SILICON	1F5-E	Q4205	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
△ D3821	D97U01801B	DIODE,ZENER	MTZJ18B T-77	Q4206	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
△ D3822	D1VT001330	DIODE,SILICON	1SS133T-77	Q4207	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D3823	D97U01601B	DIODE ZENER	MTZJ16B T-77	Q4209	T27T035410	FET	2SK3541_T2L
D3824	D4AT01H3E0	DIODE RECTIFIER	1H3-E	Q4211	T27T035410	FET	2SK3541_T2L
D3825	D97U01501B	DIODE,ZENER	MTZJ15B T-77	Q4219	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D3826	D1VT001330	DIODE,SILICON	1SS133T-77	Q4220	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D3827	D28R11FS20	DIODE	EC11FS2-TE12L	Q4221	TPAAA05001	COMPOUND TRANSISTOR	KRA101SRTK
D3828	D28R11FS20	DIODE	EC11FS2-TE12L	Q4222	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D3829	D2LT001F50	DIODE SILICON	1F5-E	Q4224	T27T035410	FET	2SK3541_T2L
D3902	D28R1QS040	DIODE	EC31QS04-TE12L	Q6203	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
D3903	D1VT001330	DIODE,SILICON	1SS133T-77	Q8506	T27T035410	FET	2SK3541_T2L
D3904	D1VT001330	DIODE,SILICON	1SS133T-77	Q8507	T27T035410	FET	2SK3541_T2L
D3905	D1VT001330	DIODE,SILICON	1SS133T-77	COILS & TRANSFORMERS			
D3906	D1VT001330	DIODE,SILICON	1SS133T-77	L300	021AMG220M	COIL	22 UH
D4001	DGERMA1110	DIODE SILICON	MA111-(TX)	L301	021AMG220M	COIL	22 UH
D6206	DGERMA1110	DIODE SILICON	MA111-(TX)	L302	021AMG220M	COIL	22 UH
ICS				L303	021AMG220M	COIL	22 UH
△ IC301	I0WFP13TR0	SOUND AMP 2*20W	STA333W13TR	L3001	021AMG4R7P	COIL	4.7 UH
△ IC2301	I1UFV5766S	5CH MOTOR DRIVER IC	AM5766	L3002	021AMG100M	COIL	10 UH
IC2801	I56M069750	SCALER	R8J66975BG	L3005	02167E100K	COIL	10 UH
IC2802	IGXM05162E	DDR2-800 512M CL=5	H5PS5162FFR-S5C	L3008	021AMG100M	COIL	10 UH
IC2803	S54H05AE01	MEMORY DATA EEPROM SOIC M32P	AT24C32CN-SH-T	L3601	02D1000119	COIL CHOKE	EXC28CG900U
IC2804	-----	MEMORY DATA FLASH 32M SPI 8PIN	AT25DF321-SU	L3602	02D1000119	COIL CHOKE	EXC28CG900U



# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
COILS & TRANSFORMERS				MISCELLANEOUS			
L3603	02D1000119	COIL CHOKE	EXC28CG900U	B6203	024HC51213	CORE,BEADS	FCM1608KF-121T06
L3604	02D1000119	COIL CHOKE	EXC28CG900U	B6502	024HC51213	CORE,BEADS	FCM1608KF-121T06
△ L3801	02167E100K	COIL	10 UH	B8501	024HC51216	CORE,BEADS	HCB1608KF-121T20
△ L3802	029B000186	COIL,LINE FILTER	JLB28121	B8502	024HC51023	CORE,BEADS	FCM1608KF-102T02
L3901	021D0N100M	COIL	10 UH	B8503	024HC51216	CORE,BEADS	HCB1608KF-121T20
L3904	02167E100K	COIL	10 UH	B8504	024HC51023	CORE,BEADS	FCM1608KF-102T02
L5801	0216SDR27J	COIL	0.27 UH	CD301	06E8143601	CORD CONNECTOR	E8143601
L5802	0216SDR27J	COIL	0.27 UH	△ CD501	120Q118901	CORD SET AC	LT01-001
L5803	0216SDR27J	COIL	0.27 UH	CP301	06GG140019	CONNECTOR PCB SIDE	A2502WR-4A
L5805	0216SDR27J	COIL	0.27 UH	CD2801	06EARU2101	CORD CONNECTOR	EARU2101
L5806	0216SDR27J	COIL	0.27 UH	CD3901	06CU2E0501	CORD CONNECTOR	CU2E0501
L8501	021ES11R8K	COIL	1.8 UH	CD3902	06CU2F0501	CORD CONNECTOR	CU2F0501
△ T3801	0481351154	TRANSFORMER,SWITCHING	81351154	CD3903	06CU282201	CORD CONNECTOR	CU282201
JACKS				CD3906	06CP2E1202	CORD CONNECTOR	CP2E1202
△ J3801	064Q1A0014	JACK,AC	CCT2302-0921FC	CD4201	06E82E2201	CORD CONNECTOR	E82E2201
J4202	062E741001	JACK (DIN)	S4-29SBZ	CD6201	06E8233302	CORD CONNECTOR	E8233302
J4203	060K481001	RCA JACK	AV3-6B-15H	CD6204	06E8254001	CORD CONNECTOR	E8254001
J4204	060K431043	RCA JACK	AV3-6D-14H	CP2201	06GG250029	CONNECTOR PCB SIDE	A2001WV-5A
J4205	060K431043	RCA JACK	AV3-6D-14H	CP2202	06GG230019	CONNECTOR PCB SIDE	A2001WR-3A
J4206	060K401144	RCA JACK	AV-4B-75H	CP2301	069EVKT060	CONNECTOR PCB SIDE	04_6232_122_015_800+
J4207	060K411059	RCA JACK	AV2-6B-08Z	CP2302	06GRV53019	CONNECTOR PCB SIDE	FCZ100E-05SS-K
J4302	060K131027	HEADPHONE JACK	CKX-035-349ABZ1	CP2303	06GRV43019	CONNECTOR PCB SIDE	FCZ100E-04SS-K
SWITCHES				CP2801	06GG270029	CONNECTOR PCB SIDE	A2001WV-7A
SW2201	0504101T34	SWITCH,TACT	EVQ21505R	CP2802	06GG2B0029	CONNECTOR PCB SIDE	A2001WV-11A
SW2202	0504101T34	SWITCH,TACT	EVQ21505R	CP2803	06GSA1008	CONNECTOR PCB SIDE	C-001-1-4K121400
SW2203	0504101T34	SWITCH,TACT	EVQ21505R	CP2804	06GG2U0049	CONNECTOR PCB SIDE	A2006WR-2*15P
SW2204	0504101T34	SWITCH,TACT	EVQ21505R	CP3001	06GG2E0029	CONNECTOR PCB SIDE	A2001WV-14A
SW2205	0504101T34	SWITCH,TACT	EVQ21505R	CP3002	06GG2F0029	CONNECTOR PCB SIDE	A2001WV-15A
SW2206	0504101T34	SWITCH,TACT	EVQ21505R	CP3601	06GSYJ3098	CONNECTOR PCB SIDE	C-HDM-6-KK223110
SW2207	0504101T34	SWITCH,TACT	EVQ21505R	CP3602	06GSYJ3098	CONNECTOR PCB SIDE	C-HDM-6-KK223110
SW2208	0504101T34	SWITCH,TACT	EVQ21505R	CP3902	067U015019	WIRE HOLDER	B2013H02-15P
P.C.BOARD ASSEMBLIES				CP3903	067U014019	WIRE HOLDER	B2013H02-14P
PCB130	A54H05A130	DVD MT PCB ASS'Y	DMJ120B	CP3906	06GG2E0019	CONNECTOR PCB SIDE	A2001WR-14A
PCB240	A54H05A240	POWER PCB ASS'Y	CEJ508A	CP4203	06G7S21501	CONNECTOR PCB SIDE	WD-00021-R
PCB270	A54H05A270	OPERATION PCB ASS'Y	CEJ509A	CP4205	06GG2E0019	CONNECTOR PCB SIDE	A2001WR-14A
PCBDA0	A54H05ADA0	REMOCON PCB ASS'Y	CEJ510A	CP6202	06GG230019	CONNECTOR PCB SIDE	A2001WR-3A
PCBDH0	A54H05ADH0	DIGITAL PCB ASS'Y	CEJ554A	CP6204	06GG250019	CONNECTOR PCB SIDE	A2001WR-5A
MISCELLANEOUS				CP8501	06GG2E0019	CONNECTOR PCB SIDE	A2001WR-14A
B300	024HC51216	CORE,BEADS	HCB1608KF-121T20	CP8502	06GG280019	CONNECTOR PCB SIDE	A2001WR-8A
B301	024HC51216	CORE,BEADS	HCB1608KF-121T20	EL2401	124116281A	EYE LET	XYR16X28BD
B302	024HC13914	CORE,BEADS	HCB3216KF-391T20	EL2402	124120301A	EYE LET	XYR20X30BD
B303	024HC13914	CORE,BEADS	HCB3216KF-391T20	△ F3801	0805T04001	FUSE	SCT 4A
B304	024HC13914	CORE,BEADS	HCB3216KF-391T20	NR2801	110P4330M5	R,NETWORK	4D02WGJ0330TCE
B305	024HC13914	CORE,BEADS	HCB3216KF-391T20	NR2802	110P4330M5	R,NETWORK	4D02WGJ0330TCE
B2341	024HC56013	CORE,BEADS	FCM1608KF-601T02	NR2803	110P4330M5	R,NETWORK	4D02WGJ0330TCE
B2342	024HC56013	CORE,BEADS	FCM1608KF-601T02	NR2804	110P4220M5	R,NETWORK	4D02WGJ0220TCE
B2801	024HC52213	CORE,BEADS	FCM1608KF-221T05	NR2805	110P4220M5	R,NETWORK	4D02WGJ0220TCE
B2805	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR2812	110P4220M5	R,NETWORK	4D02WGJ0220TCE
B2807	024HC52216	CORE,BEADS	HCB1608KF-221T20	NR2814	110P4330M5	R,NETWORK	4D02WGJ0330TCE
B2808	024HC52216	CORE,BEADS	HCB1608KF-221T20	NR2815	110P4330M5	R,NETWORK	4D02WGJ0330TCE
B2812	024HC51216	CORE,BEADS	HCB1608KF-121T20	NR4002	11074330M7	R,NETWORK	CRA108330JV
B2813	024HC51216	CORE,BEADS	HCB1608KF-121T20	OS2201	077Q038009	REMOTE RECEIVER	KSM-2003TCW2P
B2814	024HC51216	CORE,BEADS	HCB1608KF-121T20	△ SP301	070Y056007	SPEAKER	S0412F06
B2818	024HC52216	CORE,BEADS	HCB1608KF-221T20	△ SP302	070Y056007	SPEAKER	S0412F06
B3001	024HC52216	CORE,BEADS	HCB1608KF-221T20	TM101	076R0SC011	TRANSMITTER	R56-2225
B3004	024HC51216	CORE,BEADS	HCB1608KF-121T20	TR4201	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
B3008	024HC51216	CORE,BEADS	HCB1608KF-121T20	△ TU5800	0164K00030	DIGITAL TUNER	DTVA50CVH1019M
B3012	024HC51816	CORE,BEADS	HCB1608KF-181T20	△ V2801	09EV126019	LCD	V260B2-L01
B3014	024HC51816	CORE,BEADS	HCB1608KF-181T20	X2801	100GT02509	CRYSTAL	SMD-49 C25000H025
B3015	024HC51816	CORE,BEADS	HCB1608KF-181T20	X4001	1003T02733	CRYSTAL	HC49SFWB
B3016	024HC52216	CORE,BEADS	HCB1608KF-221T20	RESISTOR			
B3020	024HC51816	CORE,BEADS	HCB1608KF-181T20	RC..... CARBON RESISTOR			
B3801	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0	CAPACITORS			
B4003	024HC51023	CORE,BEADS	FCM1608KF-102T02	CC..... CERAMIC CAPACITOR			
B4008	024HC51023	CORE,BEADS	FCM1608KF-102T02	CE..... ALUMI ELECTROLYTIC CAPACITOR			
B4010	024HC51023	CORE,BEADS	FCM1608KF-102T02	CP..... POLYESTER CAPACITOR			
B4012	024HC51023	CORE,BEADS	FCM1608KF-102T02	CPP..... POLYPROPYLENE CAPACITOR			
B4203	024HC51023	CORE,BEADS	FCM1608KF-102T02	CPL..... PLASTIC CAPACITOR			
B4204	024HC51023	CORE,BEADS	FCM1608KF-102T02	CMP.....METAL POLYESTER CAPACITOR			
B4206	024HC51023	CORE,BEADS	FCM1608KF-102T02	CMPL.....METAL PLASTIC CAPACITOR			
B4207	024HC51023	CORE,BEADS	FCM1608KF-102T02	CMPP..... METAL POLYPROPYLENE CAPACITOR			
B4208	024HC51023	CORE,BEADS	FCM1608KF-102T02				
B4214	024HC51216	CORE,BEADS	HCB1608KF-121T20				
B4215	024HC56005	CORE,BEADS	FCM1608CF-600T06				
B5803	024HC52216	CORE,BEADS	HCB1608KF-221T20				
B6201	024HC51213	CORE,BEADS	FCM1608KF-121T06				
B6202	024HC51213	CORE,BEADS	FCM1608KF-121T06				



SPEC.NO.	M54H-05A
O/R NO.	K045081